CONTENTS OF SUPPLEMENT.

PERSONAL .... 39
Obituary .... 39
ENGINEERING SOCIETIES .... 39
Coming Technical Meetings .... 39
NEW PUBLICATIONS .... 39
CONSTRUCTION NEWS:
Condensed List of Contracts Pending .... 39
Railways .... 40
Street and Electric Railways .... 41
Electric Light and Power .... 41
Bridges .... 41
Buildings .... 42
Water-Works .... 42
Irrigation .... 43
Sewerage .... 43
Garbage Disposal and Street Cleaning .... 43
Streets and Roads .... 43
Manufacturing Plants .... 44
Gas Plants .... 44
Miscellaneous Contracts .... 44
Contract Prices .... 45
INDUSTRIAL NOTES .... 47

## PERSONAL.

Mr. Eugene M. Miles has been appointed Assistant City Engineer of Hudson, N. Y.

Mr. Sam. F. Crabbe has been appointed City Engineer of Fargo, N. Dak., to succeed Mr. J. T. Graves, resigned.

Mr. Henry Wick has been elected President, and Mr. W. H. Baldwin, Secretary and Treasurer, of the Ohio Steel Co., Youngstown, O.

Mr. Andrew Y. Dove, civil engineer and surveyor, of Westerly, R. I., has removed his place of business to West Elmwood, R. I.

Mr. John A. Cole, of Chicago, Ill., has been elected President of the Des Moines Water Co., Des Moines, Ia., to succeed Mr. F. M. Hubbell, resigned.

Mr. A. L. Hauck, Superintendent of the East Station of the Cincinnati Gas Light & Coke Co., Cincinnati, O., has resigned, having accepted the office of Secretary and Treasurer of the Mauss Shoe Mfg. Co. of the same city.

Mr. William S. Tarbet, of Chicago, Ill., has been appointed Consulting Engineer to the Illinois Railroad & Warehouse Commission, succeeding Mr. Dwight C. Morgan, who has resigned. Mr. Tarbet has been for some time connected with the Illinois Central R. R.

Mr. W. H. Ashwell, of the firm of W. H. Ashwell & Co., civil and mining engineers and surveyors, of Detroit, Mich., has been appointed Civil Engineer and General Superintendent of the parks and boulevards system of that city, comprising about 1,000 acres of parks and nearly 12 miles of boulevards.

Mr. Leonard Metcalf, Mem. B. S. C. E., recently Professor of Mathematics and Engineering in the Massachusetts Agricultural College, Amherst, Mass., has returned to active practice in hydraulic engineering, sharing the office of Mr. William Wheeler, M. Am. Soc. C. E., consulting engineer, at 89 State St., Boston.

Mr. R. H. Tingley, civil engineer, of Pawtucket, R. I., has been appointed Engineer of the State Boundary Line Commission, on the part of the state of Rhode Island. This commission is to act in conjunction with a similar commission on the part of Massachusetts, to adjust and re-establish the boundary line between the two states.

Dr. Hibbert Hill, Biologist to the Brooklyn (N. Y.) Department of Health, has been appointed Biologist in charge of the Rockville Centre Laboratory, established in October, 1896, for the continuous examination of the Brooklyn water supply. Mr. I. W. Elms, formerly at the Massachusetts State Board of Health Laboratory, has been appointed chemist.

Mr. W. B. Upton, has opened an office in the Washington Loan & Trust Building, Washington, D. C., under the firm name of W. B. Upton & Co., to conduct a general engineering and contracting business, making specialties of steam, electric and hydraulic plants and machinery and installation and equipment of railways, power stations and buildings.

Mr. Charles Lapham, of Milwaukee, Wis., has been appointed as engineer member of a commission to devise a plan for a sewerage system for the Menominee Valley above Milwaukee, in which are located a number of public institutions and one or more municipalities. The other members of the commission are Messrs. F. W. Springer and Charles Stickney, both of Wauwatosa.

Mr. H. W. Clark, Chemist-in-Charge of the Lawrence Experiment Station of the Massachusetts State Board of Health, has recently assumed charge in addition of the Boston laboratory of the board. This laboratory was formerly located at the Massachusetts Institute of Technology, but now occupies five convenient and well-equipped rooms in the new portion of the State House.

Mr. F. T. Chambers and Mr. C. W. Parks have been commissioned by the President as Civil Engineers, U. S. Navy, to rank in the order named above, the rank being determined by their relative standing in the competitive examination recently held. Mr. Chambers has been detailed to duty at the Brooklyn navy yard, and Mr. Parks at Norfolk. Mr. Chambers has been employed in the office of the Supervising Architect, Treasury Department, and Mr. Parks as an Assistant Examiner, U. S. Patent Office.

Mr. P. I. Packard and Mr. William A. Pratt, President of the street and sewer department of Wilmington, Del., and Professor of Electrical, Mechanical and Civil Engineering in Delaware College, have been appointed engineers for the Yukon Mining, Trading & Transportation Co., of Wilmington, Del., and have left for Alaska to examine the route, and to make a report. They will sail from Seattle, Wash., Aug. 1, to Juneau.

## OBITUARY.

Mr. Albert Post, of the firm of Post & Vreeland, builders, of Bayonne, N. J., died July 23, aged 76.

Mr. Tyler Wilson Redin, civil engineer, with the Louisville & Nashville R. R., died at Birmingham, Ala., July 17, aged 28.

Mr. Fred. B. Robb, Secretary and Treasurer of the Robb Engineering Co., Limited, of Amherst, N. S., was drowned while bathing at Fox Harbor, N. S., July 20.

Mr. Daniel Hart, for more than 25 years head of the shipbuilding firm of Hart, Trundy & Co., died in South Brooklyn, N. Y., July 20, aged 84. He was born in Ireland, but came to this country as a boy. He served for five years as Harbor Master of the Port of New York.

Gen. David W. Caldwell, President of the Lake Shore & Michigan Southern Ry., died July 21, at Cleveland, O., aged 67. He entered the railway service in 1852 in the employ of the Pennsylvania R. R., and in 1855 he was advanced to the position of Superintendent of the Pittsburg & Connellsville Division, serving in that capacity until 1859. In that year he was made Superintendent of the Ohio Central, and ten years later resigned to become Superintendent of the Columbus, Chicago & Indiana Central R. R. In 1881 he was made General Manager of the Pennsylvania Lines West of Pittsburg, and the following year was elected Vice-President of the New York, Chicago & St. Louis R. R. He was later Receiver and President of that road. Two years ago he was elected President of the Lake Shore & Michigan Southern Ry., succeeding Mr. John Newell.

## ENGINEERING SOCIETIES.

### COMING TECHNICAL MEETINGS.

IRON AND STEEL INSTITUTE OF GREAT BRITAIN.
Aug. 3-6. Autumn meeting, Cardiff, Wales. Secy., Bennett H. Brough, 28 Victoria St., London, England.
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.
Aug. 9-14. Annual meeting at Detroit, Mich. Secy., Asaph Hall, Jr., Ann Arbor, Mich.
AMERICAN CHEMICAL SOCIETY.
Aug. 9-10. Detroit, Mich. Secy., Albert C. Hale, 551 Putnam Ave., Brooklyn, N. Y.
GEOLOGICAL SOCIETY OF AMERICA.
Aug. 10. Detroit, Mich. Secy., H. L. Fairchild, Rochester, N. Y.
SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.
Aug. 16-18. Annual meeting at Toronto, Canada. Secy., C. Frank Allen, Mass. Inst. Technology, Boston, Mass.
NATIONAL ASSOCIATION OF RAILWAY AGENTS.
Aug. 17-19. Annual convention, Cleveland, O.
WESTERN FOUNDRYMEN'S ASSOCIATION.
Aug. 18. Secy., A. Sorge, Monadnock Block, Chicago, Ill.
NEW ENGLAND ROADMASTERS' ASSOCIATION.
Aug. 18. Fifteenth annual convention at Boston, Mass. Secy., F. C. Stowell, care Boston & Maine R. R., Ware, Mass.
AMERICAN SOCIETY OF CIVIL ENGINEERS.
Sept. 1. Secy., C. W. Hunt, 127 E. 23d St., New York City.
ENGINEERS' CLUB OF ST. LOUIS.
Sept. 1. Secy., Richard McCulloch, St. Louis, Mo.
WESTERN SOCIETY OF ENGINEERS.
Sept. 1. Secy., U. L. Litton, Monadnock Block, Chicago, Ill.
BROOKLYN ENGINEERS' CLUB.
Sept. 2. Secy., A. J. Prevost, 191 Montague St., Brooklyn, N. Y.
TECHNICAL SOCIETY OF THE PACIFIC COAST.
Sept. 3. Secy., O. Von Geldern, 819 Market St., San Francisco.
ENGINEERS' SOCIETY OF WESTERN NEW YORK.
Sept. 6. Secy., Henry Vier, Library Bldg., Buffalo, N.Y.
NATIONAL ASSOCIATION OF STATIONARY ENGINEERS.
Sept. 7. Sixteenth annual meeting Columbus, O.
COLUMBIAN ENGINEERING SOCIETY.
Sept. 7. Secy., F. W. Hart, 15th and H Sts., Washington, D. C.
NEW ENGLAND RAILWAY CLUB.
Sept. 8 Secy., Edw'd L. Jones, P. O. Box 1158, Boston, Mass.

THE CIVIL ENGINEERS' CLUB OF CLEVELAND.—At the regular meeting held July 13, Mr. Wm. E. Reed presented a paper entitled, "The 40-in. Equatorial of the Yerkes Observatory." It proved to be a very complete description of the great teléscope and the observatory in which it is mounted, illustrated by half-tones from photographs taken during the erection and completion of the structure. An interesting discussion followed, in which Dr. Dayton C. Miller, W. R. Warner and others took part.

NEW ENGLAND ROADMASTERS' ASSOCIATION.—The fifteenth annual convention of this association will be held at the Revere House, Bowdoin Square, Boston, Mass., Aug. 18 and 19. Arrangements have been made for exhibits, and delegates are invited to bring samples and models to show progress to date. Various committees appointed by the Executive Committee will submit reports on the following questions: What is the cost of renewing sleepers from the time received on the section until the last tie is removed and cleaned up? What is the best form of dressing double and single track in gravel ballast? Rail Joints; experience with new devices; the mechanical, scientific and practical points in favor of same (continued from 1895). Track Tools (continued from 1895). In which month shall the least or greatest amount of labor be used in the maintenance of track to get the most value from the yearly total cash allowance per section or mile of track, substantiated by facts from past experience? Review of previous years' discussions.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.—Aug. 16 will be the opening day of the fifth annual meeting of this society. The sessions will be held at the School of Practical Science, College Ave., Toronto, Ont. The following are the papers which will be read: President's Address, the Scope and Relative Importance of Theoretical Study, Henry T. Eddy; Methods of Teaching, by Text Book, by Lecture, by Design, by Laboratory, by Memory, W. H. P. Creighton; The Teaching of Machine Design, J. J. Flather; The Calculus for Engineering Students, F. W. McNair; The Influence of Scientific Research Upon the Development of Chemical Technology, H. Bunte; The Efficiency of Technical as Compared with Literary Training, T. C. Mendenhall; A Course in French and German for Engineers, A. N. Van Daell; Mining Vacation Field-work, F. W. Denton; To What Extent Should Metallurgy be Taught in Mechanical Engineering Courses, M. E. Cooley; Engineering Laboratory Courses, R. C. Carpenter; Elective Studies in Technical Courses, H. L. Monroe; Report of Committee on "Uniformity of Symbols," Ira O. Baker; Manual Training for Artisans, C. M. Woodward; Graduation Theses, Their Preparation, etc.; Agricultural Colleges, Their Function with Relation to Engineering, C. S. Murkland; The Education of the Electrical Engineer, W. E. Ayrton; A Course of Study in Electrical Engineering, R. B. Owens.

## NEW PUBLICATIONS.

MICHIGAN ENGINEERS' ANNUAL.—Containing the Proceedings of the Engineering Society for 1897. Paper; 6 × 9 ins.; pp. 282; illustrated. Climax, Mich.: Published by the Society, F. Hodgman, Secretary.

This report contains papers on various kinds of surveying and allied subjects, the water levels of the great lakes and various phases of municipal and general engineering. A novel piece of work, consisting of draining a small lake 45 ft. deep, is described by J. E. Jopling. The body of water was called Lake Angeline and was located within the city limits of Ispheming, Mich. The lake was drained to get at iron ore deposits beneath it. The work was done mostly by means of a centrifugal pump. The paper is illustrated. This work was noted briefly in our issues of March 26 and Dec. 1, 1892.

THE WATER SUPPLY OF CACHE VALLEY, UTAH.—By Samuel Fortier, Hydraulic Engineer Agricultural Experiment Station of Utah. Paper; 6 × 9 ins.; pp. 50; tables and illustrations. Logan, Utah: Experiment Station.

This is an interesting study of the water supply of a large valley in relation to: (1) The loss due to evaporation; (2) the gain from seepage; (3) the capacities of the various irrigation canals; (4) the irrigating duty of water. It contains a general discussion of the principles involved in such a study and the results of numerous gagings during one season.

A FEW CIVIC PROBLEMS OF GREATER CLEVELAND.—By C. E. Bolton, M. A.. Paper; 6 × 9 ins.; pp. 40; illustrated. Published by the author. Price, 10 cts.

The need and advantages of an extensive dock system, a union railway station, new city buildings on a public square and steps to encourage traffic on the great lakes are discussed in this pamphlet. Sewage disposal is also discussed and strong disapproval expressed of the plan to construct a flushing tunnel for the Cuyahoga River and a trunk sewer to carry the sewage ten miles beyond the city. Sewage purification is advocated, instead of the discharge of crude sewage into the lake.

## CONSTRUCTION NEWS.

### CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

| Bids to be opened. | Work. | Place. | See Eng. News. |
|---|---|---|---|
| July 29. | Light station in Maine | | July 8 |
| July 29. | Asphalt paving, Kansas City, Mo. | | July 8 |
| July 29. | County roads, (3 contracts), Pittsburg, Pa. | | July 8 |
| July 29. | Brick paving, etc., Leechburg, Pa. | | July 15 |
| | Advertised, Eng. News, July 15 and 22. | | |
| July 29. | Brick and pipe sewers, Leechburg, Pa. | | July 15 |
| | Advertised, Eng. News, July 15 and 22. | | |
| July 29. | Sand filter, Somersworth, N. H. | | July 22 |
| | Advertised, Engineering News, July 22. | | |
| July 29. | Lumber for viaduct, Cleveland, O. | | July 22 |
| July 29. | Grading, paving, etc., Cincinnati, O. | | July 22 |
| July 29. | Bridge approach, Bridgeport, Conn. | | July 22 |
| July 29. | Sewers (4 contracts), Brooklyn, N. Y. | | July 22 |
| July 29. | City bonds, New York, N. Y. | | July 22 |
| July 29. | Sewer, St. Paul, Minn. | | July 22 |
| July 30. | Asphalt paving, etc., Minneapolis, Minn. | | July 22 |
| July 30. | Bridge, Boston and Brookline, Mass. | | July 22 |
| | Advertised, Engineering News, July 22. | | |
| July 30. | Heating, New York, N. Y. | | July 22 |
| July 30. | Wooden bridges (2), Independence, Mo. | | July 15 |
| July 30. | Heating and plumbing, Youngstown, O. | | July 15 |
| July 30. | Garbage disposal, etc., Cleveland, O. | | July 8 |
| July 30. | Iron bridge, Madison, Ga. | | July 8 |
| July 30. | Cement, lumber, etc., Ft. Monroe, Va. | | July 1 |
| | Advertised, Eng. News, July 1 to 22. | | |
| July 29. | Highway construction, Boston, Mass. | | July 29 |
| July 30. | Water-works, Dover, N. J. | | July 29 |
| July 30. | Fire engines (3), Chicago, Ill. | | July 29 |
| July 30. | Sewer bonds ($30,000), Rome, N. Y. | | July 29 |
| July 30. | Paving, etc., Philadelphia, Pa. | | July 29 |
| July 31. | Roof trusses, etc., Brooklyn, N. Y. | | July 29 |
| July 31. | Bonds ($50,000), Oyster Bay, N. Y. | | July 22 |

July 31. Deepening drainage channel, Crysler, Ont. July 29
July 31. Pipe sewers, Pittsburg, Pa. July 29
July 31. Dredging, Brooklyn, N. Y. July 29
July 31. Gun emplacement, Admiralty Head, Wash. July 1
Advertised, Eng. News, July 1 to 22.
July 31. Constructing road, Gettysburg, Pa. June 24
July 31. Repairing tender, Washington, D. C. July 8
July 31. Light vessel, Washington, D. C. July 8
July 31. Street improvement, Mansfield, O. July 8
July 31. Brick paving, Zanesville, O. July 15
July 31. Brick paving, Lancaster, O. July 15
July 31. Brick paving, etc., Cleveland, O. July 15
July 31. Asphalt paving, Washington, D. C. July 15
Advertised, Engineering News, July 15.
July 31. Hospital buildings, Fort Hancock, N. Y. July 15
July 31. Extending water mains, Fort Myer, Va. July 15
July 31. Bonds ($85,000), Gardner, Mass. July 22
July 31. Stand-pipe house, etc., Bangor, Me. July 22
July 31. Asphalt paving, Washington, D. C. July 22
Advertised, Engineering News, July 22.
July 31. Gold bonds ($60,000), Ridgefield, Conn. July 22
Aug. 1. Building plans, Des Moines, Ia. July 22
Aug. 1. Water-works, Wadena, Minn. July 22
Aug. 1. Water pipe, Nelson, B. C. July 22
Aug. 1. Ventilating, Stockton, Cal. July 29
Aug. 2. Heating and ventilating, Springfield, O. July 29
Aug. 2. Castings, hydrants, etc., for 1 yr., Chicago. July 29
Aug. 2. Pipe sewers (1,900 ft.), Creston, Ia. July 29
Aug. 2. Bridge substructure, New Bedford, Mass. July 29
Aug. 2. Bridge superstructure, New Bedford, Mass. July 29
Aug. 2. Bridge piers, etc., Duluth, Minn. July 29
Aug. 2. Water tank (65,000 gals.), Audubon, Ia. July 29
Aug. 2. Macadamizing, etc., New York, N. Y. July 29
Aug. 2. Bonds ($75,000), Bethlehem, Pa. July 29
Aug. 2. Street improvement, St. Paul, Minn. July 29
Aug. 2. Park work, New York, N. Y. July 29
Aug. 2. Bridges (3), Independence, Mo. July 29
Aug. 2. Brick paving, Albany, N. Y. July 22
Aug. 2. Gymnasium building, Normal, Ill. July 22
Aug. 2. Laying water pipe, Boston, Mass. July 22
Advertised, Engineering News, July 22.
Aug. 2. Water-works, Astoria, Ill. July 2.
Aug. 2. Iron bridges (3), Braymer, Mo. July 22
Aug. 2. Pipe sewers, Elizabeth, N. J. July 22
Aug. 2. Ditches (35,800 ft.), Morris, Ill. July 22
Advertised, Engineering News, July 22.
Aug. 2. Bonds ($200,000), Galveston, Tex. July 22
Aug. 2. Hospital building, Jackson, Cal. July 15
Aug. 2. Electric light bonds, Carey, O. July 8
Aug. 2. Asphalt paving, Toledo, O. July 8
Aug. 2. Jail, Magnolia, Miss. July 8
Aug. 3. Public building, Clarksville, Tenn. July 8
Advertised, Eng. News, July 8 and 15.
Aug. 3. Court house, Brunswick, Ga. June 17
Aug. 3. Brick for paving, Warren, O. July 15
Aug. 3. Paving, etc., Sewickley, Pa. July 22
Aug. 3. Water-works bonds, Blackhawk, Colo. July 22
Aug. 3. Macadamizing, Morristown, N. J. July 22
Aug. 3. Hospital building, Port Royal, S. C. July 22
Aug. 3. Police station, New Bedford, Mass. July 29
Aug. 3. Machinists' supplies, etc., New York, N.Y. July 29
Aug. 3. Repairing platform, etc., New York, N.Y. July 29
Aug. 3. Boiler house, etc., Eureka, Ill. July 29
Aug. 3. Iron bridges (3), Cumberland, Md. July 29
Aug. 3. Repairing engines (2), Albany, N. Y. July 29
Aug. 3. Paving, etc., New York, N.Y. July 29
Aug. 3. Paving, Rochester, N. Y. July 29
Aug. 3. Asphalt paving, etc., Peoria, Ill. July 29
Advertised, Engineering News, July 29.
Aug. 3. Bridge, Cathlamet, Wash. July 29
Aug. 4. Pipe sewer (12,000 ft.), W. Hartford, Conn. July 29
Advertised, Engineering News, July 29.
Aug. 4. City hall, West Mansfield, O. July 29
Aug. 4. Heating plant, Canon City, Colo. July 29
Aug. 4. Boilers, etc. (2), New York, N. Y. July 29
Aug. 4. Pumping engine (3,000,000 gals.), Brooklyn. July 29
Aug. 4. Laying water mains, Toronto, Ont. July 29
Aug. 4. Electric light plant, Santa Rosa, Cal. July 29
Aug. 4. Gravel road, etc., Olean, N. Y. July 29
Aug. 4. Brick paving (1 mile), Freedom, Pa. July 29
Aug. 4. Masonry bridge, Hartford, Conn. July 29
Aug. 4. Prison, New York, N. Y. July 22
Aug. 4. Masonry work, New York, N. Y. July 22
Aug. 4. Steel girder bridge (60-ft.), Frankfort, Ind. July 22
Aug. 4. Brick sewer, Hoboken, N. J. July 22
Aug. 4. Brick paving, Warren, O. July 15
Aug. 4. Building bonds ($100,000), Columbus, O. July 15
Aug. 4. Army quarters, etc., Jefferson Barracks, Mo. July 8
Advertised, Eng. News, July 8 to 29.
Aug. 4. Hospital building, Ventura, Cal. July 8
Aug. 4. Paving, Hoboken, N. J. July 15
Aug. 4. Sewers, Cleveland, O. July 15
Aug. 5. Cement, Mobile, Ala. July 8
Advertised, Eng. News, July 8 to 29.
Aug. 5. Ferryboat, Governor's Island, N. Y. H. July 8
Advertised, Eng. News, July 8 to 29.
Aug. 5. Sewer pipe (56,000 ft.), Huntsville, Ala. July 22
Aug. 5. Paving, Buffalo, N. Y. July 22
Aug. 6. Steel bridge (200-ft), Jefferson City, Mo. July 22
Aug. 5. Completing sand filter, Somersworth, N.H. July 29
Advertised, Engineering News, July 29.
Aug. 5. Stone wall, Pittsburg, Pa. July 29
Aug. 5. Bridge substructure, Fort Scott, Kan. July 29
Aug. 5. Rebuilding bridge, Waynesville, Mo. July 29
Aug. 6. Granite paving, Queens county, N. Y. July 29
Advertised, Engineering News, July 29.
Aug. 6. Improving causeway, Queens county, N. Y. July 29
Advertised, Engineering News, July 29.
Aug. 6. Building, Grand Forks, B. C. July 29
Aug. 6. Asphalt repaving, Brooklyn, N. Y. July 29
Aug. 6. Curbing, etc., St. Louis, Mo. July 29
Aug. 6. Mud dredging, New York, N. Y. July 29
Aug. 6. Heating and ventilating, Holyoke, Mass. July 22
Aug. 6. Improving canal (54 miles), Albany, N. Y. July 22
Advertised, Eng. News, July 22 and 29.
Aug. 6. Street repair, Cincinnati, O. July 15
Aug. 6. Brick paving, etc., Cleveland, O. July 15
Aug. 6. Boilers, Cleveland, O. July 15
Aug. 6. Sewer, etc., Lansdowne, Pa. July 15
Aug. 6. Grading, etc., Lansdowne, Pa. July 15
Aug. 6. Tunnel (575 ft.), Cleveland, O. July 15
Aug. 6. Main sewer (4,400 ft.), Cleveland, O. July 15
Advertised, Eng. News, July 15 and 22.
Aug. 7. Engineers' supplies, Staten Island, N. Y. July 22
Advertised, Eng. News, July 22 and 29.
Aug. 7. Stone arch bridges (3), Killingly, Conn. July 29
Advertised, Engineering News, July 29.
Aug. 7. Auditorium, etc., Omaha, Neb. July 29
Aug. 7. Brick paving, St. Charles, Mo. July 29
Aug. 9. Recreation building, Brooklyn, N. Y. July 29
Aug. 9. City hall, etc., St. Paul, Minn. July 29
Aug. 9. Cement, stone, etc., Boston, Mass. July 22
Advertised, Eng. News, July 22 to Aug. 5.
Aug. 9. Asphalt paving, etc., Cleveland, O. July 22
Aug. 9. Heating system, etc., Athens, O. July 22
Aug. 9. Sewers (3 miles), Corry, Pa. July 22
Advertised, Eng. News, July 22 and 29.
Aug. 9. Gun emplacements, San Diego, Cal. July 22
Aug. 9. Paving (15,700 sq.ft.), Hamilton, O. July 15
Aug. 9. Hoisting machinery, Bangor, Me. July 15
Advertised, Engineering News, July 15.
Aug. 10. Post office building, Paterson, N. J. July 15
Aug. 10. Water-works, Siloam Springs, Ark. July 15
Advertised, Eng. News, July 15 and 22.
Aug. 16. Brick pvg (10,000 sq.yds.), Van Wert, O. July 15
Aug. 10. Paving, Omaha, Neb. July 15
Aug. 10. Electric light plant, Siloam Springs, Ark. July 15
Advertised, Eng. News, July 15 and 22.
Aug. 10. Structural iron work, etc., St. Paul, Minn. July 22
Aug. 10. Shop building, Eddyville, Ky. July 29
Aug. 10. Grading, curbing, etc., Schenectady, N.Y. July 29
Aug. 10. Cement sidewalks, etc., Washington, D.C. July 29
Advertised, Engineering News, July 29.
Aug. 10. Macadamizing, etc., Marion, O. July 29
Aug. 10. Bridge (bids, plans, etc.), Weaverville, Cal. July 29
Aug. 10. Macadamizing, New York, N. Y. July 29
Aug. 11. Morgue building, New York, N. Y. July 29
Aug. 11. Steel shed, New York, N. Y. July 29
Aug. 11. Macadamizing, etc., Oyster Bay, N. Y. July 29
Advertised, Eng. News, July 29 and Aug. 5.
Aug. 11. Levee, Memphis, Tenn. July 29
Advertised, Eng. News, July 29 and Aug. 5.
Aug. 11. Culvert, Cincinnati, O. July 29
Aug. 12. Bridge approach, Cleveland, O. July 29
Aug. 12. Asylum building, Topeka, Kan. July 22
Aug. 12. Cast-iron water pipe, Topeka, Kan. July 22
Aug. 12. Ditch (320,000 cu. yds.), Momence, Ill. July 22
Advertised, Eng. News, July 22 to Aug. 5.
Aug. 12. Electric light franchise, Lebanon, O. July 29
Advertised, Engineering News, July 29.
Aug. 13. Gun carriages (5), Washington, D. C. July 22
Aug. 14. Dams, levees, etc., Rock Island, Ill. July 22
Advertised, Eng. News, July 22 to Aug. 12.
Aug. 16. Light towers, Detroit, Mich. July 29
Advertised, Eng. News, July 29 and Aug. 5.
Aug. 16. Court house addition, Alturas, Cal. July 29
Aug. 16. Garbage crematory, Fort Myer, Va. July 29
Aug. 16. Wood and iron bridge, Langdon, N. Dak. July 29
Aug. 16. Moving pumping engine, etc., St. Paul, Minn. July 29
Aug. 16. Brick paving, Toledo, O. July 29
Aug. 16. Paving bonds ($15,000), Oberlin, O. July 29
Aug. 16. Closing crevasses, etc., Memphis, Tenn. July 29
Advertised, Eng. News, July 29 and Aug. 5.
Aug. 17. Rolling iron shutters, New York, N. Y. July 29
Aug. 17. Brick paving, Oberlin, O. July 29
Advertised, Engineering News, Aug. 5.
Aug. 19. Steel forgings (57 sets), Washington, D.C. July 29
Aug. 19. Bridge (310-ft.), Sigourney, Ia. July 22
Aug. 20. Water tank, etc., Fort Sill, Okla. July 29
Aug. 21. Paving, Hamilton, O. July 29
Aug. 21. Asphalt paving, Akron, O. July 29
Advertised, Eng. News, July 29 to Aug. 12.
Aug. 23. Levee work, Memphis, Tenn. July 22
Aug. 23. Water-works, Newbern, Tenn. July 29
Advertised, Engineering News, July 29.
Aug. 24. Garbage crematory, Ft. Leavenworth, Kan. July 29
Aug. 25. Tail race and dam, Chicago, Ill. July 22
Advertised, Eng. News, July 22 to Aug. 12.
Sept. 8. Bridge substructures (4), Chicago, Ill. July 22
Advertised, Eng. News, July 22 to Aug. 12.
Sept. 10. Breakwater piers (2,700 ft.), Duluth, Minn. July 15
Advertised, Eng. News, July 15 to Sept. 2.
Sept. 14. Battle-ships (3), Washington, D. C. July 8
Sept. 20. Hospital building, Winnemucca, Nev. July 22
Oct. 1. Electric light plant, Herve, Belgium. July 8
Nov. —. Plans for public building, Mexico, Mex. May 6

## RAILWAYS.

ALASKA.—Press reports from Wilmington, Del., state that the Yukon Mining, Trading & Transportation Co. has been organized in that city by William Saulsbury, Preston Lea and others, for the construction of a railway from Juneau, Alaska, to the head of the navigable waters on the Yukon River, 150 miles distant. Prof. William A. Pratt, Pres. Street & Sewer Dept., has gone to Alaska to see whether the building of the proposed line is feasible.

AROOSTOOK NORTHERN.—We are informed that the preliminary location of this road has been completed and that the final location is now being made; the capital has been secured and some work has been started. The construction of the line, which will run from Caribou to Limestone, via Fort Fairfield, Me., a distance of 15 miles, is under the immediate supervision of George McPhail, A. A. Burleigh, Pres., Houlton, Me.; R. H. Cushing, Ch. Engr., Caribou, Me.

BAINBRIDGE NORTHERN.—James A. Reid, Ch. Engr., Bainbridge, Ga., informs us that this railway is already constructed from Bainbridge to Eldorendo, Ga., a distance of 10 miles, and that, contrary to current reports, the line will not be extended for quite a while. Pres., C. H. Caldwell, Bainbridge.

BILLINGHAM BAY & EASTERN.—J. J. Donovan, Ch. Engr., Fairhaven, Wash., informs us that this line is in operation between Lake Whatcom and Bellingham Bay, a distance of 8½ miles, and that the surveys for the proposed extension, 11½ miles farther, have not yet been made nor the capital for the same secured. It is hoped, however, to have work on the proposed extension under way this year. Pres., Peter Larson, Helena, Mont.

CHATTANOOGA & LOOKOUT MOUNTAIN.—Vernon S. Whiteside, Chattanooga, Tenn., informs us that this line was constructed in 1889, but that it has not been in operation lately and in consequence is in a bad condition. On June 22 he purchased the 9 miles of existing road and several passenger coaches. The officers of the company will soon be changed and extensive repairs made preparatory to putting the line in operation. Pres., J. T. Crass, Chattanooga, Tenn.

BOISE, NAMPA & OWYKEE.—John E. Stearns, Gen. Mgr., Nampa, Idaho, informs us that the surveys for this proposed line have been completed and the capital secured, but at present it is not decided when contracts for the work will be awarded. Track has been laid from Nampa to Guffy, Ida., 22 miles distant, and the road will be extended, about 40 miles further to Dewey, via Reynolds. H. H. Dewey, Pres., Dewey; J. M. Clark, Ch. Engr., Nampa, Ida.

ELKHART & WESTERN.—W. H. Rosencrans, Ch. Engr., South Bend, Ind., informs us that three routes for this proposed railway have been surveyed and the necessary capital secured. Two bridges will probably be required to be built over the St. Joseph River. When completed the line will run from Mishawak to South Bend, 4½ miles distant. Pres., H. E. Bucklen, Chicago, Ill.

HUTCHINSON & SOUTHERN.—It is reported that preliminary surveys are being made for a 50-mile extension of this line from Medford, where this road connects with the Chicago, Rock Island & Pacific Ry., to Ponca, Okla., on the Atchison, Topeka & Santa Fe Ry. W. A. Bradford, Jr., Gen. Mgr., Hutchinson, Kan.

KANSAS CITY & WESTPORT BELT.—This company has been incorporated in Missouri, with a capital stock of $150,000, to build a railway from a connection with the Kansas City, Osceola & Southern, near the Blue River, northwest through Westport to Kansas City, Mo., a distance of 15 miles. From Westport the tracks of the Kansas City, Fort Scott & Memphis R. R. will be used to the Union depot in Kansas City. The incorporators are: D. C. Blair, Belvidere, N. J.; C. S. Blair, New York; John H. Lucas and Henry Pfeiffer, Kansas City, Mo.

KANSAS CITY, OSCEOLA & SOUTHERN.—Reports state that surveys will soon be made for an extension from Osceola to Bolivar, Mo., 36 miles distant, to connect with a branch of the St. Louis & San Francisco Ry. C. Miller, Pres., Bangor, Pa.; B. S. Josselyn, Gen. Mgr., Clinton, Mo.

LAFOURCHE SUGAR BELT.—Frank Matthews, Ch. Engr., Donaldsville, La., informs us that the necessary surveys, estimates, etc., for this proposed line have been completed, and that as yet no contracts have been let. The track will be laid with 52 or 56-lb. rails. When finished, the railway will run from Donaldsville to Lafourche Crossing via Paincourtville and Napoleonville, La., a distance of 50 miles. Pres., R. M. Quigley, St. Louis, Mo.

LOUISIANA.—William Edenborn, Pres. Consolidated Steel Wire Nail Co., Chicago, Ill., informs us that the project is yet in embryo for the building of a railway from Shreveport along the Red River to Conshatta, La., a distance of about 45 miles.

MUNISING.—R. C. Young, Ch. Engr., Munising, Mich., informs us that 40 miles of this railway is already constructed, and that 12 miles more are under construction; the right of way has been secured but the entire capital has not yet been obtained. When completed the line, including the branches, will be 150 miles long. Pres., Dani. P. Eells, Cleveland, O.

NORTHERN PACIFIC.—E. H. McHenry, Ch. Engr., St. Paul, Minn., informs us that contrary to press reports this company does not contemplate any new railway construction in Northwestern Minnesota.

OMAHA NORTHERN.—This company has been incorporated with a capital stock of $100,000, to construct and operate a railway from Omaha, Neb., through the counties of Douglas, Washington, Burt, Thurston, Dakota, Dixon and Cedar to a point on the Missouri River, opposite Yankton, S. D. The incorporators are George W. Covell, A. S. Churchill, Phil E. Winter, A. E. English and W. F. Conger.

PENNSYLVANIA.—Press reports state that the contract for building the connecting railway between Beatty, on the Pennsylvania R. R., and Trauger, on the Southwest branch, has been let to Z. T. Henry, Irwin, Pa., a distance of about 6 miles. Work will begin at once. Pres., Charles E. Speer, Pres. First National Bank, Pittsburg, Pa.

PENNSYLVANIA.—This company is reported about to resume construction work on the Philadelphia, Pittsburg and middle divisions. W. H. Brown, Ch. Engr., Philadelphia.

QUEEN ANNE'S.—Wade, Burns & Co. have been awarded the contract for building the last section of this road from Milton to Lewes, Del., 9 miles distant. The present line extends from Queenstown, Md., to within 2 miles of Milton, Del. W. H. Bosley, Pres.; I. W. Troxel, Gen. Mgr., Baltimore, Md.

OLD DOMINION & CAROLINA.—Our correspondent informs us that work of construction on this line, which will be an extension of the Richmond, Blackstone & Southern, will begin next month; when completed it will extend from Richmond, Va., to Ridgeway, N. C. Pres., Peter Arlund, Petersburg, Va.

SABINE TERMINAL.—J. W. Brownlee, Secy. Sabine Terminal Ry. & Union Depot Co., Sabine Pass, Tex., informs us this company proposes to construct a belt railway to give all the lines entering Sabine Pass an easy access to deep water; also to erect a union depot. The proposed road will extend from the Gulf to Keath Lake, belting the new and old towns of Sabine Pass, a distance of 10 miles, and the project is backed by the Sabine Land & Improvement Co. The capital is all secured, and condemnation proceedings will soon begin. Pres., Jas. O. Osgood, Sabine Pass.

ST. LOUIS, CARUTHERSVILLE & MEMPHIS.—This company was incorporated in Missouri, July 23, with a capital stock of $210,000. It is proposed to build and operate a standard gage railway from Caruthersville to the Arkansas line, a distance of 21 miles. The directors are Charles Gertner, St. Louis, Mo.; H. Clay Garrett, H. C. Schulte, W. H. Huffman, F. J. Cunningham, C. B. Farris, J. A. Cunningham and S. P. Reynolds, Caruthersville, Mo.

SOUTH ALABAMA & GULF.—Reports state that it is proposed to build this line from Selma to Pensacola, Fla., with a branch connecting with the Plant System at Dothen, Ala. Contracts have already been awarded for work from Elba to Dothen, a distance of 40 miles. W. H. Parrish, Pres., Richmond, Va.; W. B. Gilmer, Gen. Mgr., Greenville, Ala.

SUMPTER & BOURNE.—This company has been incorporated in Oregon with a capital stock of $100,000; principal place of business, Salem, Ore. It is proposed to construct a railway in Baker county, having terminals at Sumpter, Bourne and Cable Cove, Ore. The incorporators are: B. L. McLean, J. H. Clarke, Thomas McEwan and Arthur Philbrick.

SUPERIOR, HUTCHINSON & LITTLE ROCK.—This company was incorporated July 24 in Kansas, with a capital stock of $10,000,000. The line will pass through Tahlequah, I. T.; Wichita, Kan., Hutchinson, Kan., and other business centers. The new road is an outgrowth of the Hutchinson & Southern R. R., and will absorb that road. It is also proposed to buy the Kansas Midland, a short independent line between Wichita and Ellsworth, and to incorporate it into the system.

UNION PACIFIC & SWEETWATER.—Reports state that the surveys are being made for this proposed road from Hanna, Wyo., on the Union Pacific System, northwest via Seminoe and Ferris to Johnstown, a distance of about 70 miles. The company from Incorporated last May, with a capital stock of $200,000, by Ellsworth T. Martin, David G. Robertson and Oscar Coon. Otto Gramm, Pres., Laramie, Wyo.; James D. Negus, Ch. Engr., Cheyenne, Wyo.

WASHBURN, BAYFIELD & IRON RIVER.—Reports state that S. H. Bracey, Chicago, Ill., has been awarded the contract for building this road from Washburn to Iron River, Wis., a distance of 35 miles, and that grading was begun July 16.

WEST CLARION.—This company was incorporated in Pennsylvania July 21, with a capital stock of $20,000, to build and operate a railway from Brockwayville to West Clarion Mines, in Snyder township. Pres., Joseph Bailey, Brockwayville, Pa.

WHEELING & LAKE ERIE.—Thos. J. Sturgis, Portland Station, O., informs us that he has been awarded the contract for building an extension of this railway along the Ohio River to the Martin's Ferry blast furnace. The work, which will be commenced at once, will include grading, trestle-building and track-laying.

## STREET AND ELECTRIC RAILWAYS.

BOSTON, MASS.—The Railroad Commissioners have granted the Boston Elevated Ry. permission to issue $500,000 stock at once. The amount of the original stock has been limited to $10,000,000, and the system has been approved by the commissioners.——Permission has also been granted the Brockton, Bridgewater & Taunton Street Ry. Co. by the Railroad Commissioners to issue bonds for $200,000.

NEW HAVEN, CONN.—The New England Construction Co. has just been organized in this city to build and equip street railways, electric light and gas plants, waterworks, and to carry on other business connected therewith. Capital, $30,000; all paid up. The company will begin the construction of a street railway 14 miles in length in Bangor, Me., at an early date. Henry L. Mitchell, Bangor, Me.; C. B. Wellington, Albion, Me.; Thos. M. Waller, New London, Conn., and others are interested.——C. W. Blakeslee & Sons have been awarded the contract for the extension of the Westville line from its present terminus to the old Pond Lily Paper Mills, about one-half mile.

BROOKLYN, N. Y.—Bids will be received on Aug. 1 for equipping the Brooklyn Elevated R. R. with electricity. The Sprague unit system and the third rail will probably be adopted, according to report. Passenger elevators will be erected along the lines.

BRIGHTON, N. Y.—An electric road is proposed from this place to Georgetown, a station on the West Shore R. R. in Madison county.

CLAVERACK, N. Y.—It is reported that the Hudson Electric Ry. will be extended to this place in the fall.

MAMARONECK, N. Y.—It is proposed to construct an electric road from White Plains to this town.

NEW YORK, N. Y.—The Metropolitan Street Ry. Co. will erect a new three-story brick and stone power house on the block bounded by First Ave., East River, 95th and 96th Sts., to cost $350,000.

ONEONTA, N. Y.—The Railroad Commissioners have given permission to the Oneonta & Otego Valley R. R. to construct ten miles of electric street railway in this place.

PENN YAN, N. Y.—It is proposed to construct two electric railways in this town, one to Savona, a distance of about 25 miles; the other to Branchport. The latter has been constructed as far as Keuka Park, and the stringing of wires has commenced.

WHITE PLAINS, N. Y.—Wm. D. MacQueston, Mount Vernon, has been awarded the contract for completing the extension of the New York, White Plains & Elmsford Ry. to Tarrytown.

MOUNT HOLLY, N. J.—Officials of the Pennsylvania R. R. will this week inspect the new electric road from this city to Burlington, and tests will be made for several days. The road is seven miles long, and was built by the Westinghouse Electric & Mfg. Co.

CHARLEROI, PA.—The contract for building the Charleroi, Bellevernon & Fayette City Street Ry. has been awarded to H. H. Benny & Co., Charleroi.

GREENSBURG, PA.—It is proposed to build electric roads from this town to Latrobe and to Mt. Pleasant. Benj. F. Myers, Harrisburg, and ex-Judge Sadler, Carlisle, are interested.

HELLERTOWN, PA.—The contract for the construction of an electric road from this place to South Bethlehem has been awarded to Pascoe & Crilly of this town.

NEW KENSINGTON, PA.—Col. M. D. Weyman of the Nesbitt Foundry & Machine Co. is at the head of a company which proposes to build a line of electric road from this place to Greensburg.

PHILADELPHIA, PA.—Permission has been granted the Philadelphia & Merion Ry. Co. to lay tracks and use electric motors, to be supplied from overhead wires.

PITTSBURG, PA.—Work on the Reserve Township & Mt. Troy Traction Street Ry. has been begun. Jolly Bros., Coraopolis, have the contract. About 15 miles of road will be built. Pres., C. Beckert, Jr.; Secy., Aug. Beckert.

POTTSTOWN, PA.—Work on the extension of the Ringing Rocks Electric Ry. has been commenced; it will be about four miles in length.

WEST CLARION, PA.—The West Clarion R. R. Co. has been chartered to build a road from Brockwayville to West Clarion Mines. Capital, $20,000. Pres., Jas. Bailey, Brockwayville.

WASHINGTON, D. C.—Surveys are being made by the Washington, Arlington & Falls Church Electric Ry. Co., to extend its line from Arlington into Fairfax county.——The District Commissioners have refused to permit the Eckington R. R. to adopt an air-motor system on its road.

CHARLESTON, S. C.—The promotors of the Charleston City Ry. will apply to the next Legislature for a charter.

ALLIANCE, O.—The proposed electric road between Canton and this city, a distance of 18 miles, has been surveyed as far as Meximo. Eastern capitalists are said to be interested in the scheme. The road will be known as the Canton, Louisville & Alliance Electric Street Ry. R. R. Jacobs, Waynesburg, is interested.

FREMONT, O.—It is proposed to extend the Toledo, Bowling Green & Fremont Electric Ry. to this place in the near future. Secy., A. K. Detwiller, Toledo.

EAU CLAIRE, WIS.—Surveys for the proposed route of the Chippewa Valley Electric Ry. are under way between this place and Chippewa Falls. Pres., H. N. Bates.

CHICAGO, ILL.—The Chicago City Street Ry. Co. has decided to equip its cable lines with electricity, at a cost of from $1,500,000 to $2,000,000, to be covered by a new issue of stock.

HOWARD, ILL.—A franchise has been granted to Windsor, Williams & Luck to build an electric road from this place to Geneva Lake.

LAKE FOREST, ILL.—The city council has granted the right of way to the Bluff City Electric Ry. Co. A bonus of about $25,000 is given to the town as a consideration. The line will be about 36 miles in length.

MARSEILLES, ILL.—Surveys are in progress for the route of the proposed electric railway between this place and Lake Geneva, Wis. J. B. Whalen is interested.

FLINT, MICH.—At a meeting of capitalists in this place, July 13, it was decided to commence raising $500,000 for an electric street railway from this place to Long Lake and Fenton, a distance of 16 miles. Geo. H. Johnson, New York, subscribed $150,000. W. C. Durand, Major George Buckingham, Wm. C. Lewis, H. C. Spencer and George Durand are the local committee.

YOAKUM, TEX.—The city council has granted a franchise to M. G. Ramsey & Co. to construct an electric street railway in this city, according to reports.

ST. LOUIS, MO.—It is proposed to extend the Southern Electric Ry. from its present terminus to the Fair Grounds.

KANSAS CITY, MO.—Heim Bros. propose to build an electric street railway from 5th and Walnut Sts. to the Heim brewery.

LEAVENWORTH, KAN.—Application has been made for a franchise to build an electric railway from Kansas City to this city.

CANON CITY, COLO.—Ed. Minor, City Clk., writes us that an electric railway is to be built from this city to Cripple Creek, a distance of about 24 miles. The contract for the first five miles of grading has been let to Orman, Crook & Co. C.W. Hascoll and J. B. Crosby are interested. The road will be known as the Canon City & Cripple Creek Gold Belt R. R.

FRESNO, CAL.—A committee has been appointed to investigate the feasibility of building an electric road from this city to the high sierras. E. F. Bernhard, Hundred Thousand Club, is interseted.

NORTH BERKELEY, CAL.—A mass meeting was to have been held July 22 to consider the securing of a street railway to the north end of Berkeley. H. J. Squires, W. K. Weir and J. J. Dunn are interested.

PASADENA, CAL.—The Pasadena & Los Angeles Electric Ry. Co. is extending its line. Pres., C. W. Smith.——The city trustees have given permission to the mule-car railway company to introduce electricty on its Los Robles Ave. line.——The Pasadena & Pacific Electric Ry. Co. has agreed to extend its line to the foot of the trail up Wilson's Peak.

RANDSBURG, CAL.—The Randsburg Ry. Co. has mortgaged its line to the Rochester Trust & Safe Deposit Co. for $300,000, with the object of raising funds to build a railway from Kramer, 35 miles east of Mojave, to Johannesburg.

TACOMA, WASH.—The power house of the Tacoma Ry. Co. was damaged to the extent of $20,000, according to a press report, by the breaking of a valve of the governor of a 1,000-HP. engine, which caused the engine to race, thus bursting the flywheel, one piece of which was carried 300 ft.

HULL, ENGLAND.—Consul Miller states that plans are prepared and bids will be asked within two months for 10 miles of double-track electric railway in Hull. A. E. White, Boro. Engr., Hull, England.

## ELECTRIC LIGHT AND POWER.

HARDWICK, VT.—I. A. Shattuck, Town Clk., writes us that this town has voted to construct an electric light plant.

FOXBORO, MASS.—Reports state that the Foxboro Electric Light & Power Co. is about to erect its proposed power house. Arrangements have been made, it is said, to furnish light to this town and Mansfield.

INDIAN ORCHARD, MASS.—The United Electric Co. is said to be considering the increase and extension of its plant. The plans include the putting in of another water wheel, estimated capacity 900 HP., making a total of 2,700 HP. available.

BUFFALO, N. Y.—Local papers state that John C. Graves and Sylvester N. Stewart have made application to the war department for permission to use the current of the Niagara River for generating power by the use of an invention of Mr. Stewart's.

DOLGEVILLE, N. Y.—McCaghey & Linehan, Sandy Hill, N. Y., are reported to have been awarded the contract for constructing a power house and stone dam at this place, at about $35,000.

MASSENA, N. Y.—Reports state that the Lehigh Construction Co., Easton, Pa., which has taken the contract for constructing the proposed water-power canal from the St. Lawrence to the Grasse River, has commenced preparations for the work. Men are now erecting sheds for the workmen. The canal will start from the St. Lawrence, at the mouth of Dodge's Creek, and run southeasterly on a straight line to the Grasse River, one mile below this village. It will be three miles in length, 200 ft. wide at water level, and will be cut to a depth of 25 ft. The excavation will necessitate the removal of 24,000,000 cu. ft. of earth. The estimated cost of the canal and its equipment is $3,000,000. The work, which will be pushed night and day, is expected to be completed inside of two years.

NIAGARA, N. Y.—The American Electric Power Co. has asked permission of the Ontario Government to build and operate an electric transmission cable across the Niagara River.

WOODSTOWN, N. J.—Reports state that this town is considering the construction of a lighting plant.

HATBORO, PA.—This city is reported to have purchased a plot of land 183x243 ft. for the proposed electric light plant and water-works.

PHILADELPHIA, PA. — The commission appointed to investigate the advisability of building a municipal lighting plant is expected to report in September. Engr., J. J. De Kinder, Girard Bldg., Philadelphia. J. J. Leeds, Chn. Com.

ROANOKE RAPIDS, N. C.—The Roanoke Navigation & Water Power Co., Weldon and Roanoke Rapids, will put in an individual electric light plant at once, according to reports. Maj. J. W. Wilson, Pres.

CHESTER, S. C.—James McLannon, Secy. Comrs., informs us that the following bids were received July 16 for constructing an electric light plant, as advertised in Engineering News; the General Electric Co. was awarded the contract for engines, dynamos and exciter, and transformers and meters, and Offutt, Remsen & Hayes that for the line work:

| Items. | Fort Wayne (Ind.) Electric Corp. | Offutt, Remsen & Hayes, Rockville, Md. | R. L. Coleman, Columbia, S.C. | General Electric Co., Schenectady, N. Y. | Western Electric Co., Chicago, Ill. |
|---|---|---|---|---|---|
| Engines | $2,204 | $1,663 | $1,101 | $1,335 | $1,890 |
| Dynamo and exciter | 2,706 | 2,710 | 2,543 | 2,439 | 2,840 |
| Line work | 3,827 | 3,114 | 3,939 | 3,729 | 5,973 |
| Transformers and meters | 1,232 | 1,233 | 1,068 | 1,028 | 1,204 |
| Total | $9,965 | $8,714 | $8,651 | $8,542 | $11,917 |

ORANGEBURG, S. C. — Last week ex-Congressman Samuel Dibble, who recently went north to arrange for the construction of his cotton mills, located here, it is reported, will also install an electric light plant.

ASHLAND, KY.—Mayor Newman is reported to have submitted estimates showing that it would be cheaper for the town to build and operate its own electric light plant, at a cost of $18,000, than to renew the contract with the Ashland Electric Light & Power Co., which will expire in November.

OWENSBORO, KY.—C. W. Wells, Cy. Clk., writes us that no steps have been taken toward constructing an electric light plant, and that none is proposed by the city. It has made a new three-year contract with the Ohio Electric Co., which has already built a new plant.

CANTON, O.—Councilman Benj. Faust is reported to be pushing a scheme to turn the municipal water-works into an electric light plant and build a new water-works; estimated cost, about $50,000.

LEBANON, O.—Bids are asked until Aug. 12 for purchasing an electric light franchise, as stated in our advertising columns. M. E. Gustin, Mayor; R. B. Corwin, Town Clk.

MONROEVILLE, O.—J. F. Henniger, Corporation Clk., writes us that the council on July 20 decided to call an election for Aug. 17 to vote on the question of issuing $26,500 in bonds for an electric light plant and waterworks.

PERRYSBURG, O.—The question of constructing an electric light plant for this place and Maumee, is being considered, according to reports.

ORANGE, IND.—The construction of an electric light plant and water-works at this place is proposed, according to reports.

ORLEANS, IND.—Frank Scheffold, New Albany, Ind., is reported as endeavoring to secure a franchise for an electric light plant and water-works.

MILWAUKEE, WIS.—The committee will soon submit its report to the board of public works on its recent investigation into the question of a municipal electric light plant, to cost about $50,000.

NEW RICHMOND, WIS.—Plans for the plant of the Apple River Power Co. have been completed by C. B. Pride, of Appleton, Wis. It is the intention of this company to transmit electricity to this place.

HENDERSON, MINN.—It is reported that an election will be held Aug. 9 to vote on the question of issuing $5,000 in bonds for constructing an electric light plant.

HURON, S. DAK.—Harry Sterling is said to be interested in a proposed electric light plant in this place.

SPOKANE, WASH.—The Spokane Electric Light & Power Co. is reported by local papers to have offered to put in a plant. There is some talk of a municipal plant.

SANTA ROSA, CAL.—Bids are asked until Aug. 4 for constructing an electric light plant at the Eldridge Home. Des. Engr., H. M. Kelley, 59 First St., San Francisco, Cal.; A. P. Overton, Pres. Bd. Trustees, Santa Rosa, Cal.

OGDEN, UTAH.—Edward H. Anderson, City Recdr., writes us that an issue of bonds for electric lighting was authorized July 15.

PROVO, UTAH.—Capt. J. R. De Lama, of De Lama, Nev., is said to have closed a contract with the Telluride Power & Transmission Co., of Colorado, to put in a plant in the Provo Canyon. A temporary 15-ft. dam will be built at once. The permanent plant will include a reservoir, an 80-ft. dam, flume, power machinery, etc., to cost about $2,000,000. The power will be transmitted to the cyanide plant at Mercur, and to Tintic, Utah. Jas. Leffel, Springfield, O., has the contract for the machinery. P. N. Nunn, Elec. Engr., and Chas. E. Gregory, Vice-Pres., Cleveland, O., may be addressed.

VERNON, B. C.—Reports state that the council has passed a law providing $12,000 for constructing an electric light plant and $53,000 for water-works.

DARTMOUTH, N. S.—The taxpayers have voted to make a new contract with the Dartmouth Electric Light Co. to furnish for three years as many 32-c. p. lights as may be required at $25 a light a year. T. Scarpe, Chn. Com.

NEW COMPANIES.—Silver City Electric Co., Silver City, New Mexico,; $19,000; to supply electricity for light, heat and motive power; M. W. Neff, G. D. Jones, W. A. Hawkins.

## BRIDGES.

PORTLAND, ME.—It is reported that the railroad commissioners have decided to construct a $20,000 bridge at Washington St. The city is to pay one-half the cost and the Portland R. R. and the Portland & Rochester one-quarter each.

WINDSOR, VT.—Plans are being prepared by the Boston & Maine R. R. for a stone bridge to replace the bridge across the Connecticut River, one arch of which was carried away by a log jam. J. P. Snow, Bridge Engr., Boston, Mass.

RICHFORD, VT.—Several bridges in this vicinity have been washed away by the recent rains, according to reports.

NEW BEDFORD, MASS.—Bids are asked by the county commissioners until Aug. 2, for building the substructure and the superstructure of the middle portion of the New Bedford and Fairhaven bridge. William Sanders, Chn.; William F. Williams, Engr.

HARTFORD, CONN.—Bids are asked until Aug. 4 for constructing a masonry bridge over Park River at Park St. Wm. E. Cone, Vice-Pres. Bd. St. Comrs.

KILLINGLY, CONN.—Bids are asked by the board of selectmen until Aug. 7 for constructing three stone arch bridges, as stated in our advertising columns. O. W. Bowen, Clk.

NEW YORK, N. Y.—Bids will soon be asked, according to reports, for constructing the proposed Willis Ave. bridge across the Harlem River.

SYRACUSE, N. Y. — The contracts for constructing steel girder bridges over Onondaga Creek at Seymour and Temple Sts. have been awarded to the Wrought Iron Bridge Co., Canton, O., at $4,832 and $4,054 respectively.

WATERTOWN, N. Y. — Local papers state that the Groton Bridge & Mfg. Co., Groton, N. Y., has been awarded, at $9,000, the contract for constructing the proposed bridge over the Black River at Mill St.

BIRMINGHAM, PA.—Reports say that the state is to construct a bridge over the Juniata River, near this place.

BRADDOCK, PA.—Bids are asked, according to reports, for constructing a 1,300-ft. bridge at this place. James Rutherford, Cy. Engr.

PHILADELPHIA, PA. — The following bids were received July 20 for constructing the masonry substructure for the proposed swing bridge over the Schuylkill River at Gray's Ferry Ave.; the itemized bids will probably be published next week:

| | |
|---|---|
| Drake & Stratton Co., Philadelphia | $265,000 |
| H. H. Achuff & Co., Philadelphia | 310,000 |
| Sparks & Evans, Philadelphia | 294,981 |
| Houston Construction Co., Philadelphia | 267,638 |
| J. W. Hoffman & Co. Philadelphia | 335,960 |
| Jutte & Foley Co., Pittsburg | 235,733 |
| C. H. Moore & Co., Philadelphia | 272,200 |
| R. A. Malone & Co., Lancaster | 255,000 |

TEMPERANCEVILLE, PA. — Reports state that Ch. Engr. Johnson has prepared plans for a 150-ft. steel bridge to be erected here at an estimated cost of about $20,000.

BALTIMORE, MD.—The following bids were received July 26 for constructing a steel bridge and approach at Wilkens Ave., as advertised in Engineering News:

| | |
|---|---|
| B. H. Hood, St. Paul Building, New York | $24,875 |
| Structural Iron Co., Baltimore, Md. (accepted) | 24,489 |
| Canton Bridge Co., Canton, O. | 31,500 |
| Edge Moor Bridge Works, Wilmington, Del. | 27,800 |
| The Penn Bridge Co., Beaver Falls, Pa. | 32,500 |
| Grant Wilkins, Atlanta, Ga. | 39,500 |
| N. J. Steel & Iron Co., Trenton, N. J. | 28,378 |
| Jones, Pollard & Co., Baltimore, Md. | 32,100 |
| Toledo Bridge Co., Toledo, O. | 25,445 |
| Maryland Steel Co., Sparrow's Point, Md. | 25,978 |
| Columbian Iron Works, Baltimore, Md. | 28,845 |
| Wrought Iron Bridge Co., Canton, O. | 26,773 |
| Youngstown Bridge Co., Youngstown, O. | 26,900 |
| King Bridge Co., Cleveland, O. | 28,250 |

CUMBERLAND, MD.—Bids are asked by the county commissioners until Aug. 3 for constructing three iron bridges. Wm. J. Miller, Clk.

CINCINNATI, O.—Bids are asked until Aug. 11 for constructing a semi-circular arch culvert on the Amity road in Sycamore township. Fred Bader, Pres. Bd. County Comrs.

CLEVELAND, O.—Bids are asked until Aug. 12 for constructing a 60-ft. plate, girder approach to the proposed bridge over the railway on Wilson Ave. Geo. R. Warden, Dir. Pub. Wks.

MARION, O.—Reports state that the Canton Bridge Co., of Canton, O., has been awarded, at $3,900, the contract for constructing an iron bridge across the Big Scioto River, near Agosta. P. Drake, of this city, is said to have been awarded the contract for the masonry work at $1.25 a perch.

MOUNT VERNON, O.—The Columbus Bridge Co., of Columbus, O., is said to have been awarded, at $6,500, the contract for constructing the superstructure for the proposed bridge over the Mohican River at Butler's Ford. W. A. Wander, County Audr.

YOUNGSTOWN, O.—Local papers state that bids will soon be asked for constructing the substructure and superstructure of the proposed truss bridge at Market St. The bridge is to be about 1,850 ft. long, 54 ft. wide, with a 38 or 40-ft. roadway. David W. Wise, County Engr.

ZANESVILLE, O.—The following bids were received July 29 for constructing an iron bridge near Fultonham. Jas. L. Starkey, County Audr.:

| | |
|---|---|
| Lafayette Bridge Co., Lafayette, Ind. | $1,325 and $1,400 |
| Brackett Bridge Co., Cincinnatti, O. | 1,397 |
| Toledo Bridge Co., Toledo, O. | 1,334 to 1,572 |
| Youngstown Bridge Co., Youngstown, O. | 1,230 |
| Cincinnati Bridge Co., Cincinnati, O. | 1,500 |
| Canton Bridge Co., Canton, O. | 1,573 |
| King Bridge Co., Cleveland, O. | 1,500 to 1,700 |
| Variety Iron Works Co., Cleveland, O. | 1,350 |
| Bellefontaine Bridge & Iron Co., Bellefontaine, O. | 1,149 and 1,239 |
| New Columbus Bridge Co., Columbus, O. | 1,087 to 1,305 |
| Iron Substructure Co., Columbus, O. | 1,790 and 1,800 |
| Pittsburg Bridge Co., Pittsburg, Pa. | 1,535 |
| Mount Vernon Bridge Co., Mount Vernon, O. | 1,625 and 1,935 |

RICHMOND, IND.—Local papers state that plans have been prepared for a concrete bridge with stone facing, to be built at Glen Miller. H. L. Weber, Cy. Engr.

PORT HURON, MICH.—Reports state that the Groton Bridge & Mfg. Co. has been awarded, at $19,300, the contract for constructing a 220-ft. swing bridge with 230-ft. of steel trestle approaches, as advertised in Engineering News.

SHEBOYGAN FALLS, WIS.—An iron bridge is to be constructed across the Onion River at this place, according to reports. C. N. Boley, Cy. Engr.

DULUTH, MINN.—Bids are asked until Aug. 2 for constructing steel trusses, piers, abutments and frost box to carry a 42-in. main and a 10-in. rider across Lester River. W. H. Smith, Pres. Bd. Pub. Wks.

WHITEWATER, MINN. — R. R. Young, Town Clk., writes us that the stone for the substructure of the proposed bridge is on the ground and that the construction will soon be commenced. The superstructure is being made by the Wisconsin Bridge & Iron Co., Milwaukee, Wis. E. C. Burns, Des. Engr. The work is in charge of John Stein, Rollingstone, Minn.

FORT SCOTT, KAN.—Bids are asked until Aug. 5 for stone work, excavation, etc., for four bridges. H. Frankenburger, County Clk.

LANGDON, N. DAK.—Bids are asked by the county commissioners until Aug. 16 for constructing a 100-ft. wood and iron bridge across the Pembina River at Langie Crossing. Robert Work, County Audr.

INDEPENDENCE, MO.—Bids are asked until Aug. 2 for constructing one 30-ft. iron bridge and two wooden bridges. Thos. F. Callahan, County Surv.

WAYNESVILLE, MO.—Bids are asked until Aug. 5 for rebuilding the McCain bridge. W. J. Barrows, County Surv.

BLOOMFIELD, N. MEX.—Reports state that $1,500 has been appropriated for a bridge across the San Juan at this place.

CATHLAMET, WASH.—Bids are asked until Aug. 3 for constructing a 142-ft. bridge, 14 ft. wide, across Duck Creek. Elmer B. Colwell, County Audr.

ELDRIDGE, CAL.—The following bids were received July 7, by A. P. Overton, Pres. Bd. Trustees Home for Feeble-Minded Children, for constructing a bridge over Sonoma Creek:

| | |
|---|---|
| Jas. A. McMahon, San Francisco (awarded) | $1,989 and $2,165 |
| Corton Bros. & Co., Oakland, Cal. | 2,050 |
| Johnson & Peterson, Oakland, Cal. | 2,095 and 2,195 |
| Darby, Laydon & Co., San Francisco | 2,389 " 2,498 |
| J. H. McKay, San Francisco | 2,435 " 2,910 |
| San Francisco Bridge Co., San Francisco | 2,900 |

SAN ANDREAS, CAL.—Our correspondent informs us that the supervisors of Calaveras and Tuolumme counties have decided to construct a bridge across the Stanislaus River, near Robinson's Ferry.

SIDNEY, WASH.—Bids are asked for bracing and repairing the bridge at South Colby, also for building two bridges in District No. 1.

SAN FRANCISCO, CAL.—Local papers state that the construction of the proposed $10,000 steel bridge across the railroad tracks at Miguel St. is being agitated, and that a committee has been appointed to appear before the board of supervisors to urge immediate action on the project.

SAN RAFAEL, CAL.—Reports state that plans are being prepared for a concrete bridge to be constructed across the creek at Shaver St. Geo. L. Richardson, Cy. Engr.

VISALIA, CAL.—A bridge is to be constructed across the north fork of the Kaweah River. County Surveyor Wilson is to prepare plans and specifications.

WEAVERVILLE, CAL.—Bids, plans and specifications are asked until Aug. 10 for the construction of a new suspension bridge across Trinity River, near Junction City. R. L. Carter, Clk. Bd. Supervisors.

## BUILDINGS.

NEW BEDFORD, MASS.—Bids are asked until Aug. 8 for building a police station, ward room and branch library room combined. S. C. Hunt, Chn. City Property Com.; Robt. H. Slack, Arch., Cummings Bldg.

BROOKLYN, N. Y.—Bids are asked until July 31 for constructing roof trusses and for dredging at the U. S. Navy Yard in this city. E. O. Matthews, Ch. Bureau Yards & Docks, Navy Dept., Washington, D. C.

BROOKLYN, N. Y.—Bids are asked until Aug. 9 for erecting a new recreation pier building on the dock at the foot of North 2d St.; bond required, $15,000. Theo. B. Willis, Comr. Cy. Wks. Reports state that plans have been prepared for thirty 3-story brick dwelling houses to be erected for the Metropolitan Improvement Co., to cost about $150,000. Arch., David W. King, 111 5th Ave., New York.

NEW YORK, N. Y.—Bids are asked until Aug. 11 by the department of public charities, 66 3d Ave., for erecting a new morgue over the water near Bellevue Hospital Dock, at the foot of 26th St., East River; two $15,000 bonds are required; also for erecting a department office and steel shed on the pier at the foot of East 26th St. Pres., Silas B. Croft——Bids are asked by the treasury department, Washington, D. C., until Aug. 17 for all the labor and materials required for rolling iron shutters above second story for the U. S. Appraiser's warehouse in this city. C. E. Kemper, Acting Supervising Arch., Washington.——Plans have been filed by John Kehoe, 304 West 18th St., for four 6-story brick tenement and store buildings on Norfolk St., near Stanton St., to cost $104,000. Arch., John C. Burne, 101 West 42d St.; by Western Electric Co., Greenwich and Thames Sts., for a 4-story brick storage house and lime kiln at 149 Bank St., to cost $50,000. Arch., C. L. W. Eidlitz, 1,123 Broadway; by E. H. Cushman and others, 337 West 22d St., for a 12-story brick and stone office building at Maiden Lane and Broadway, to cost $125,000. Arch., C. P. H. Gilbert, 18 Broadway; by William C. Whitney, 871 5th Ave., for a 4-story and basement brick and stone dwelling house at 5th Ave. and 68th St., to cost $150,000. Archs., McKim, Mead & White, 160 5th Ave.

NEW YORK, N. Y.—The erection of a new engine-house at Chambers St. and Park Row, to replace the present brown-stone building in City Hall Park, is contemplated by the board of estimate and apportionment. Ashbel P. Fitch, Comptroller, 15 Stewart Bldg.—Attilio Pasquini, Albany, N. Y., has been awarded the contract for constructing a building for a central power and heating plant on Ward's Island, at $21,988. Henry E. Howland, Pres. Manhattan State Hospital, I Madison Ave.——Plans have been filed by Leopold R. Treu, 114 West 34th St., for an 8-story brick and stone warehouse at 7 Great Jones St., to cost $90,000. Arch., Louis Korn, 37 Maiden Lane; by Metropolitan Street Railway Co., 621 Broadway, for a 3-story brick and stone power station at 1st Ave. and 95th to 96th St., to cost $350,000. Arch., A. V. Porter, 621 Broadway; by Jacob Korn, 924 Madison Ave., for a 5-story brick flat and store building at 3d Ave. and 103d St., to cost about $50,000. Arch., Louis Korn, 37 Maiden Lane.

RICHFIELD SPRINGS.—A fire in this place, July 25, destroyed the Spring House, a 4-story hotel building, causing an estimated loss of $150,000; insurance, $60,000.

YONKERS, N. Y.—Reports state that plans are being prepared for a 4-story brick addition to the John M. Mason school building on Ashburton Ave., to cost $45,000. Arch., C. C. Chipman, 220 Broadway, New York.——Plans are also being prepared for a 4-story brick addition to school building No. 7, on Walnut St., for which an appropriation of $30,000 has been made. Arch., G. Howard Chamberlain, 1,183 Broadway, New York; W. F. Nisbet, Pres. Bd. Education, 66 New St., New York, N. Y.

PITTSBURG, PA.—A permit has been granted to Joseph Horne & Co. for repairing the Horne office building, which was damaged by fire on May 2; estimated cost, $58,000.

HUNTINGTON, W. VA.—Bids are asked until July 31 for erecting a dormitory annex to Marshall College at this place; Arch., Harrison Albright, Charleston, W. Va. J. R. Trotter, Pres. Bd. Regents.

JACKSON, GA.—J. G. McDonald informs us that the only public improvement contemplated for this place, is a new $25,000 court house, on which work will be commenced in about a month.

EDDYVILLE, KY.—Bids are asked until Aug. 10 for erecting a 3-story brick shop building inside the walls of the state penitentiary at this place. S. H. Stone and G. W. Long, Bldg. Comrs., Frankfort, Ky.; Clark & Loomis, Archs., 502 4th Ave., Louisville, Ky.

PORT CLINTON, O.—Reports state that the county commissioners have decided to rebuild and enlarge the court house at a cost of about $100,000.

SPRINGFIELD, O.—Bids are asked by the board of education until Aug. 2, for heating and ventilating the annex of the central school building. Clk., Oliver H. Muller, 18 Gotwald Bldg.; Arch., Robt. G. Gotwald, 47 Gotwald Bldg.

UPPER SANDUSKY, O.—C. Boseker & Son, Fort Wayne, Ind., have been awarded the contract for erecting the new stone court house in this city at $124,640. Theo. W. Parker, County Audr.

WEST MANSFIELD, O.—Bids are asked until Aug. 4 for a 2-story brick, stone and terra cotta city hall and office building, 50 × 100 ft.. Archs., Karmer & Wurmser, Lorain, O.

DETROIT, MICH.—Bids are asked until Aug. 16 for constructing the Sturgeon Bay Canal and Devil's Island light towers, Wisconsin, and North Manitou light tower, Michigan, as stated in our advertising columns. Maj. M. B. Adams, U. S. Light-house Engr., Detroit.——Plans have been prepared for Mrs. T. D. Buhl for a brick and terra cotta store building, to cost about $50,000. Archs., Mason & Rice, 80 Griswold St.

AUSTIN, ILL.—Plans have been prepared for a 3-story brick and stone school building, 81 × 88 ft., to cost about $35,000. Arch., F. R. Shock, Austin.

CHICAGO, ILL.—Plans have been filed by the board of education for an addition to the school building at 2707 to 2715 Shields Ave., to cost $50,000.

CHICAGO, ILL.—Bids are asked for erecting a 4-story apartment building on Ellis Ave., near 38th St., to cost about $35,000. A. R. Clark & Co., owners, First National Bank Bldg.——Plans are being prepared for a 3-story brick and stone apartment building on West Lake St. to cost $30,000; also for a 4-story stone apartment building to be erected on Dearborn St., near 23d St., for Robt. H. Corwin, at a cost of $25,000. Archs., Chubb & Mozier, 810 Opera House Block.

EUREKA, ILL.—Bids are asked until Aug. 3 for constructing a boiler house and a steam heating plant for the Woodford county court house. P. A. Peller, Chn. Bldg. Com.; Bell & Kent, Archs., Merriam Block, Council Bluffs, Ia.

PEORIA, ILL.—Bids are asked until Aug. 9 for erecting the city hall and prison buildings in this city. R. M. Orr, Cy. Clk.; Reeves & Baillie, Archs., Y. M. C. A. Bldg.; address M. W. Manning, Comr. Pub Wks.

BOSCOBEL, WIS.—Bids are asked by this town for $10,000 in bonds, which, with an additional $5,000, will be used in erecting a new school building.

MILWAUKEE, WIS.—The following bids were received July 16 for the materials, labor, etc., required for the interior finish of the post-office building in this city, as advertised in Engineering News; C. E. Kemper, Acting Supervising Arch., Washington, D. C.:

| | | Time. |
|---|---|---|
| Henry Shenk, Erie, Pa. | $279,753 | 12 mos. |
| W. H. Ellis, Cincinnati, O. | 278,752 | 12 mos. |
| Evans Marble Co., Baltimore, Md. | 279,975 | 12 mos. |
| Joseph J. Churchyard, Buffalo, N. Y. | 287,265 | 12 mos. |
| H. S. Pelton & Co., Milwaukee, Wis. | 304,500 | 10 mos. |
| Foster & Smith, Minneapolis, Minn. | 392,270 | 12 mos. |
| Matthews Bros. Mfg. Co., Milwaukee | 317,290 | 9 mos. |
| Clas & Langenberger, Milwaukee, Wis. | 309,340 | 12 mos. |
| Wollaeger Mfg. Co., Milwaukee, Wis. | 268,942 | 12 mos. |
| W. S. Seaman & Co., Milwaukee, Wis. | 325,000 | 12 mos. |
| Edmonds Mfg. Co., Chicago, Ill. | 285,245 | 12 mos. |
| Hennessey & Cox, St. Paul, Minn. | 250,989 | 12 mos. |
| L. L. Leach & Son, Chicago, Ill. | 287,873 | 12 mos. |
| Chas. Luenzmann & Son, Milwaukee | 297,942 | .... |
| W. E. Frost Mfg. Co., Chicago, Ill. | 292,060 | 12 mos. |
| J. G. Wagner Co., Milwaukee, Wis. | 294,800 | 12 mos. |
| Jas. A. McGonigle, Leavenworth, Kan. | 301,000 | 12 mos. |
| Henry Ferge, Milwaukee, Wis. | 309,863 | 12 mos. |
| C. Everett Clark, Chicago, Ill. | 285,351 | 12 mos. |
| Earnshaw & Goldie, Chicago, Ill. | 297,440 | 12 mos. |
| W. C. Peake, Washington, D. C. | 307,936 | 12 mos. |

RACINE, WIS.—The council on June 19 voted to erect a new school building in the 3d Ward, to cost $25,000.

ZUMBROTA, MINN.—At a school meeting July 17 it was decided to erect a new brick school building, at a cost of about $20,000, to replace the structure burned on July 5. Arch., James Chandler.

OMAHA, NEB.—Bids are asked until Aug. 7 for erecting the auditorium and mines and mining buildings for the Trans-Mississippi and International Exposition. F. P. Kirkendall, Mgr. Grounds and Bldg. Dept.

CANON CITY, COLO.—Bids are asked until Aug. 4 for erecting a steam heating plant in the Fremont county court house in this city. Jos. W. Wilson, County Clk.

THE DALLES, ORE.—Bids are asked until Aug. 3 for the erection of the foundation for a new high school building in school district No. 12; also for the construction of the superstructure of the building. O. D. Doane, Chn. Bd. Directors.

ALTURAS, CAL.—Bids are asked until Aug. 16 for erecting an addition to the court house in this town. M. Hughes, Clk. Bd.

SAN JOSE, CAL.—Bids are asked for erecting a new high school building, for which the council has voted to issue $75,000 in bonds.

STOCKTON, CAL.—Bids are asked until Aug. 1 for ventilating the county court house. Otto Grunsky, Clk. Bd. Supervisors of San Joaquin County.

BRIGHAM, UTAH.—Bids are asked by the trustees of the Fielding school district, until Aug. 9, for erecting a new school building. Address Lemuel Rogers, Trustee, Fielding, Utah, or C. M. Squires, Brigham.

MOAB, UTAH.—The commissioners of Grand county have ordered a special election to be held Aug. 12 to vote on the proposition of the county issuing $10,000 in bonds for the erection of a new court house and the building of roads and bridges, and on the proposition of San Juan county being annexed to Grand county.

GRAND FORKS, B. C.—Bids are asked until Aug. 6 for erecting a provincial government office building at this place, and a lockup at Greenwood. Address Leonard Norris, Asst. Comr. Lands and Works, Vernon, B. C.

## WATER-WORKS.

LIVERMORE FALLS, ME.—It is reported that this place will soon have works.

NASHUA, N. H.—The Pennichuck Water Co. is reported as contemplating making extensive improvements to its works. The work proposed includes a 24-in. main in the bed of the Nashua River. Supt., H. G. Holden.

SOMERSWORTH, N. H.—Bids are asked until Aug. 5 for completing the construction of a covered sand filter having an area of about half an acre, as stated in our advertising columns. (Postponement from July 29). Engr., Wm. Wheeler, 89 State St., Boston; C. H. Wells, Chn. Com.

LOWELL, MASS.—The water board has voted to construct a steel stand-pipe, 60 × 40 ft., at a cost of $13,300. The question of constructing a new reservoir on Christian Hill to succeed the low-pressure service is also under consideration. Supt., R. J. Thomas.

WILLIMANTIC, CONN.—Bids are reported as being asked by the council water committee for repairing the pumps at Natchang Lake, to cost about $3,000.

ALBANY, N. Y.—Bids are asked until Aug. 3 for repairing two condensing beam pumping engines at the river pumping station; bond, $1,000. Geo. I. Bailey, Supt.

BROOKLYN, N. Y.—Bids are asked until Aug 4 for furnishing and erecting a 3,000,000-gallon pumping engine, the water to be lifted about 130 ft. Theo. B. Willis, Comr. Cy. Wks.

LITTLE FALLS, N. Y.—The Utica Pipe Co., Utica, N. Y., is reported to have been awarded the contract for furnishing 6,300 ft. of 14 to 20-in. pipe for the proposed increased water supply from the Eaton Pond in the Spruce Creek watershed, to the Beaver Creek pipe line system. Estimated cost, $50,000. S. E. Babcock, Ch. Engr.

NIAGARA FALLS, N. Y.—Henry A. Keller, Supt. Water-Works, has recommended the purchase of two 5,000,000-gallon pumps.

PITTSFORD, N. Y.—P. D. Carpenter, Pres. Bd. Water Comrs., writes us that the board having failed to sell the bonds for the proposed works, because of a technicality, is now seeking proposals from a private company to whom it may grant a franchise.

SHARON SPRINGS, N. Y.—O. M. Mallett, Village Clk., writes us that the time for receiving bids for constructing works and sewers has been postponed from July 27 for about two weeks. A. W. Gardner, Chn. Com.

MOUNT HOLLY, N. J.—It is reported that certain citizens are organizing a new water company to supply this place with water from an artesian well at Marlton. Address Henry Brick, Marlton, N. J.

DOVER, N. J.—Bids are asked until July 30 for furnishing this city with a complete working water plant, with a capacity of 500,000 gallons of pure drinking water daily. The bids received June 30 on a similar proposition, but rejected, were published in our issue of July 15. J. V. Baker, Cy. Clk.

WOODBRIDGE, N. J.—L. J. Richardson, Owego, N. Y., has been awarded the contract for constructing the proposed works at this place for the Midland Water Co. The work will include five miles of pipe. Foster M. Voorhees, Elizabeth, N. J., may be addressed.

DELTA, PA.—An election will be held Aug. 2 to vote on the question of issuing bonds for works to cost about $12,000. At an election last November the town voted to issue bonds but it was probably illegal. S. L. Kinsey, Boro. Secy.

HARRISBURG, PA.—The board of water commissioners has decided to ask for bids for extending the influent pipes in the river.

PATTON, PA.—E. C. Brown, Supt. Chest Creek Land & Improvement Co., writes us that the company is laying about two miles of 4, 6 and 8-in. cast-iron water pipe. It is in the market for a mechanical pressure filter to be put on the 8-in. line, so the water may be filtered by gravity under about 100 lbs. pressure. Pres., John Lang, Corning, N. Y.

SHARON, PA.—The bonds for the proposed municipal water-works will be sold at once, according to local papers. The people voted over a year ago to issue the bonds. Work will probably be begun at once. Councilmen Locke and Nickle may be addressed.

TAMAQUA, PA.—Samuel Beard, Town Clk., writes us that the people at the election July 23 voted against issuing $50,000 in bonds for improving the works.

BALTIMORE, MD.—N. S. Hill, Jr., Ch. Engr. Water Dept., is stated by local papers as preparing plans for a stand-pipe at West Arlington. It will be 40 × 80 ft., and is estimated to cost about $35,000.

PORTSMOUTH, VA.—C. D. Ward, Secy. Portsmouth Water Co., writes us that the company is laying a new 20-in. cast-iron force main from Suffolk to this city, alongside the old 14-in. wrought-iron main.

GAFFNEY CITY, S. C.—L. Baker, Town Clk., writes us that it is probable no works will be built for about two years.

ATLANTA, GA.—The United States Improvement Co., Philadelphia, Pa., has let the contract for erecting in this city a water tower 60 ft. high and a tank of 10,000 gallons, to the Berlin Iron Bridge Co., East Berlin, Conn.

DOUGLASVILLE, GA.—L. C. Upshow, of the committee, informs us that the proposed works are to be completed in about 12 months by a private company; estimated cost, $12,000.

OXFORD, ALA.—It is reported that this place will build water-works.

SUMMIT, MISS.—At a meeting of the council and mayor July 7 it was decided to engage Alber & Byrne, 1821 Second Ave., Birmingham, Ala., to prepare plans and specifications for the proposed works, and also to superintend the construction of the same.

COLUMBUS, MISS.—H. M. Lanier, Cy. Marshal, writes us that at the election held July 19 it was voted not to issue bonds for improving the works and erecting a stand-pipe. It is reported that another election will be held to vote on the question of erecting a more complete works.

ELLISVILLE, MISS.—J. F. Parker, Mayor, writes us that nothing has been done in regard to works, and the probability is that the matter will fail entirely.

HOUMA, LA.—D. Angus, Secy., writes us that an election will be held in January to vote on the question of works.

IDLEWILD, TENN. — Howe & Lovell, Engrs., 43 Equitable Bldg., Memphis, Tenn., write us that at a meeting held July 23 the question of constructing works and a sewer system was indefinitely postponed on account of insufficient finances. Mayor J. A. Goodwin, Chn. Com.

NEWBERN, TENN.—Bids are asked until Aug. 23 for constructing works, as described in our advertising columns. Engr., E. E. Davis, Newbern; J. S. McCorkle, Mayor.

CALDWELL, O.—An election will be held Aug. 14 to vote on the question of constructing works. Consult. Engr., L. E. Chapin, Canton, O.

COSHOCTON, O.—D. A. Raiff, Supt. Water-works, writes us that the town intends to purchase a new water source for the Worthington 1,000,000-gallon engine; also it is intended to lay 800 ft. of 12-in. flanged suction pipe, 400 ft. of which will be laid on the bed of the Tuscarawas River and taken to wells beyond. The above work will be let by contract.

MONROEVILLE, O.—J. F. Henniger, Corporation Clk., writes us that the council has decided to call an election for Aug. 17 to vote on the question of issuing $26,500 in bonds for works and an electric light plant.

SYCAMORE, O.—The question of works is being considered, according to reports.

ORLEANS, IND.—Frank Scheffold, of New Albany, Ind., is reported as endeavoring to secure permission to construct works and an electric light plant. The works would include three miles of mains and 25 fire plugs; estimated cost, $15,000.

CHICAGO, ILL.—Bids are asked until Aug. 2 for furnishing the city with special castings for water pipe, hydrants, stop valves, etc., as may be required for one year. L. E. McGann, Comr. Pub. Wks.——The mayor and the commissioner of public works have been directed by the council to ask for bids for furnishing a 14,000,000-gallon horizontal pumping engine, etc., to cost about $190,000. Wm. Loeffler, Cy. Clk.

FREEBURG, ILL.—Henry Rentchler, of Belleville, Ill., is reported to have been awarded the contract for extending the works.

PEORIA, ILL.—Jacob A. Harman, Consult. Engr., 12 Arcade Bldg., Peoria, writes us that he wishes to secure prices on the following material for the Illinois Asylum for Incurable Insane: 150 to 200 tons, 200 to 250 tons, 250 to 300-ton lots of 8-in. water main weighing 50 lbs. a ft. Also on 200 to 300-ton, and 300 to 400-ton lots of 10-in. cast-iron water pipe, weighing 60 lbs. a ft. These quotations are wanted f. o. b. cars Peoria, for delivery during the month of August or the first half of September.

WAUWATOSA, WIS.—The council is arranging to sell $40,000 in bonds for the proposed works, plans for which are completed.

WEST SALEM, WIS.—C. H. Van Wormer, Village Clk., writes us that no steps have yet been taken towards erecting works, reported as being considered in our issue of July 15.

AUDUBON, IA.—Bids are asked until Aug. 2 (postponement from July 19) for constructing a 65,000-gallon water tank, 20 × 24 ft., and a brick tower, 16 × 24 ft., etc. Mayor, H. W. Hanna; Supt., E. J. Freeman.

OSKALOOSA, IA.—The Oskaloosa Water Co. has decided, according to local papers, to build a 3,000,000-gallon reservoir at the pumping station, to cost about $10,000. Engr., J. A. Cole, 1580 Old Colony Bldg., Chicago, Ill.; Asst. Supt., Wm. Luscomb; Pres., F. M. Colston, Baltimore, Md.

ROCK VALLEY, IA.—It is reported that an election will soon be held to vote on the question of constructing works.

ST. PAUL, MINN.—Bids are asked until Aug. 16 for taking out, moving and resetting the 2,000,000-gallon pumping engine at McCarren's Lake Pumping Station; also foundation, cap stones, foundation bolts, pipes, valves, etc., and everything pertaining thereto; and resetting the same in place at the Como Park pump-house. Matt. Jensen, Cy. Clk. and Secy. Bd. Park Comrs.

DILLON, MONT.—Geo. R. Melton is reported to have been granted a 20-year franchise for water-works. Work will be begun at once.

BANCROFT, NEB.—The bonds for the construction of the proposed works have been sold, and work on the plant, to cost $5,000, will be begun at once, according to reports. D. W. Burke, Chn. Trustees.

MEMPHIS, MO.—It is reported that $2,000 in bonds will be sold for making extensions to the works.

FORT SILL, OKLA.—Bids are asked until Aug. 20 for constructing a steel trestle and a water tank of 50,000 gallons capacity at this place. J. G. C. Lee, Asst. Q. M. Gen., U. S. Army, Chicago, Ill.

SEGER, OKLA.—John H. Seger, Supt. Seger Colony School, writes us that Edward Rockaday, El Reno, Okla., was awarded the contract July 13 for constructing works at $2,975. J. E. Penick, Seger Colony, was the only other bidder at $3,000.

BEEVILLE, TEX.—The citizens are considering the question of securing a permanent water supply from either artesian wells or from dams, to be built across Paesta Creek. The works of the Beeville Water Co., which was for domestic service only, will close in about 50 days, on account of insufficient water. Secy., J. C. Crisp.

SAN FRANCISCO, CAL.—Propositions are asked until Sept. 20, for furnishing the city and county of San Francisco with a supply of pure, fresh drinking water. John A. Russell, Clk. Bd. Supervisors.

VISALIA, CAL.—It is reported that the city water plant has been leased to the Visalia Mfg. Co. for a term of 10 years. It is probable that the works will be improved. Harry Levinson may be addressed.

FLAGSTAFF, ARIZ.—Work on the proposed plant will soon be begun by J. A. Jones, of Oceanside, Cal., according to reports. The pipe line will be 17 miles long, and will cost $65,000. The pipe will probably be made in this vicinity. C. A. Bush, Cy. Engr.

OGDEN, UTAH.—At the election held in this city July 15 the people voted to issue about $250,000 in bonds for the purchase of the water-works and the electric light plant, owned by the Bear Lake & River Water-Works & Irrigation Co. M. N. Bethel, Cy. Engr.

TORONTO, ONT.—Bids are asked until Aug. 4 for laying water mains in certain streets. R. J. Fleming, Mayor.

FORT WILLIAM, ONT.—It is reported that this place voted, July 9, to construct works, to cost about $35,000; population, 2,500.

RAT PORTAGE, ONT.—An election will be held at once to vote on the question of constructing works, according to reports. Geo. Barnes may be addressed.

VERNON, B. C.—The construction of works at a cost of about $53,000, and an electric light plant at a cost of $12,000, is proposed, according to reports. R. J. Davies, Cy. Clk.

## IRRIGATION.

IOWA PARK, TEX.—At a mass meeting July 17 resolutions were adopted endorsing amendments which have as their object the development of irrigation systems in this part of the state. Governor C. A. Culberson is one of the chief advocates of the irrigation amendments.

WESTON, IDAHO.—An irrigation scheme is being considered by the farmers in this section. It involves a canal and ditch which will water from 30,000 to 50,000 acres of land in Cache Valley. Prof. Fortier, Irrigation Engr., Experiment Station of Utah, may be addressed.

HERMOSILLA, MEX.—Press reports state that H. T. Richards, of the International Irrigation & Improvement Co., of this place, began location surveys for an irrigation system in the Sonora River valley. It is expected to start the construction about Sept. 15. Estimated cost, $750,000 gold.

## SEWERAGE.

DEERING, ME.—Reports state that a sewer is to be constructed from Forest Ave. to the Portland line. W. P. Ayer, Chn. Sewer Com.

CLINTON, MASS.—Reports state that F. Herbert Snow, Cy. Engr., Brockton, Mass., has been engaged as consulting engineer, to act in connection with the sewerage committee in considering the plan of sewage disposal for this city.

SPENCER, MASS.—Nathan E. Craig, Town Engr. and Supt. of Sewers, writes us as follows: This town recently voted $20,000 for a sewage disposal plant of about ten acres, and a 3,200-ft. iron force main. I am now preparing plans and specifications and shall contract the work. Shall be ready for bids in about ten days, and shall limit help employed to citizens of Massachusetts.

SOUTHINGTON, CONN.—It is reported that a Providence engineering firm is investigating the project of constructing an improved sewer system in this town.

WEST HARTFORD, CONN.—Bids are asked until Aug. 4 for constructing 12,000 ft. of 24 to 10-in. pipe sewers, as stated in our advertising columns. Engr., H. Brown Alderson, 55 Capitol Ave., Hartford; E. T. Stanley, First Selectman, West Hartford.

BROOKLYN, N. Y.—Edwin C. Swezey, Engr., informs us that the following bids were received July 22 for grading, paving and sewering Homewood, as advertised in Engineering News: Thos. Byrnes, $86,191; John J. Maloney, $58,100; Harris & Maguire, $52,867; Timothy E. Desmond, $55,000; John J. Curran, $58,700; Norton & Gorman, $49,488; Geo. Fruh, $63,000; E. J. McKeever, $63,500; Smedley, $51,000.

ROME, N. Y.—Bids are asked until July 30 for the purchase of $30,000 in 4% sewer bonds. K. S. Putnam, Chamberlain.

DOVER, N. J.—Geo. E. Jenkins, Cy. Engr., wants catalogues and price-lists of cast-iron manhole and catchbasin covers. A sewer will soon be constructed in one street, and other contracts awarded later.

PHILADELPHIA, PA.—The mayor has approved the ordinance authorizing the construction of sewers in sundry streets.

PITTSBURG, PA.—Bids are asked until July 31 for constructing 15 to 24-in. pipe sewers in various streets. Edward M. Bigelow, Dir. Dept. Pub. Wks.

SEWICKLEY, PA.—R. F. Shannon, Secy. Edgeworth Sewer Co., informs us that the proposed sewer system for this town includes about 1,500 ft. of 20-in. sewer with an average cut of 10 ft.

ELKTON, MD.—Reports state that the construction of a sewer system is being agitated.

NEWPORT NEWS, VA.—The council is considering an ordinance authorizing the issuing of $80,000 in bonds for a sewer system. Geo. V. Alsop, Cy. Engr.

ATLANTA, GA.—Ordinances have been introduced into the council providing for the constructing of sewers in several streets. W. D. Greene, Cy. Clk.

CYNTHIANA, KY.—Local papers state that the council has passed an ordinance providing for the construction of sewers in various streets. Mayor Ashbrook.

FORT WAYNE, IND.—Local papers state that the plans for the proposed Lakeside sewer have been accepted. It will be a 5-ft. brick sewer, 1,440 ft. long. Lateral sewers from all parts of Lakeside will drain into the main pipe.

MILWAUKEE, WIS.—Reports state that Governor Scofield has appointed as members of the commission to devise plans for a system of sewerage for the Menomonee and Kinnickinnie valleys, in Milwaukee county, Charles Lapham, of Milwaukee, and F. W. Springer and Charles Sleeney, of Wauwatosa.

CRESTON, IA.—Bids are asked until Aug. 2 for constructing about 1,900 ft. of 12 to 10-in. pipe sewer, seven manholes, etc.; bond, $1,000. C. A. Niemeyer, Mayor.

FARGO, N. DAK.—Bids are asked for furnishing the material and for constructing about 4,000 ft. of 15-in. pipe sewer. S. T. Crabbe, Cy. Engr.

OAKLAND, CAL.—Local papers state that the construction of a trunk sewer along the water front, from East Oakland to West Oakland marsh is being considered. J. P. Dunn, Health Officer.

PALO ALTO, CAL.—This city is considering the proposition of issuing $60,000 in bonds for a sewer system, according to reports.

PASADENA, CAL.—Reports state that plans are being prepared for the construction of a sewer system here. W. B. Clapp, Cy. Engr.

CRYSLER, ONT.—Bids are asked until July 31 for deepening, widening and straightening McInnes Creek, consisting of about 24,366 cu. yds. earth excavation, 46 cu. yds. rock excavation and four culverts. J. A. Cockburn, Town Clk.; T. H. Wiggins, Engr.

## GARBAGE DISPOSAL—STREET CLEANING.

BOSTON, MASS.—The Mayor inspected the garbage disposal system of Philadelphia last week, and it is stated that a system similar to the one there will be recommended for this city.

PASSAIC, N. J.—It is reported that the council is considering the question of the collection and disposal of the garbage and waste. There is said to be a company organizing for this purpose.

FORT MYER, VA.—Bids are asked until Aug. 16 for constructing a garbage crematory at this fort. Capt. J. W. Summerhayes, Constructing Q. M.

FINDLAY, O.—The sanitary committee has recommended to the council that it make a contract with U. K. Stringfellows, Findlay, for the collection and destruction of the garbage, waste, etc. Councilmen Biggs, Blachford and Ewing may be addressed.

GRAND RAPIDS, MICH.—The council received the following bids July 22 for the collection and disposal of the garbage, waste, etc., of this city: U. K. Stringfellows, Findlay, O., double burner, $9,550; Vivarttas system, the H G. Smith Co., New York, single burner, $11,275; double burner, add $500; W. J. Willis, Findlay, O., the Dixon burner, single cell, $11,516; double cell, $14,250; and the Engle Crematory Co., Des Moines, Ia., single cell, $11,500; double cell, $15,500. Dr. Dales, of the board of health, may be addressed.

FORT LEAVENWORTH, KAN.—Bids are asked until Aug. 24 for constructing a garbage cremator at this fort. J. G. C. Lee, Asst. Q. M. Gen., U. S. A., Chicago, Ill.

## STREETS AND ROADS.

BOSTON, MASS.—Bids are asked until July 29 for building sections of the state highway in the towns of Dennis, Lowell, Walpole and Wilbraham, Mass. Address Massachusetts Highway Commission, 4 Mt. Vernon St., Boston.

BOSTON, MASS.—Bids are asked until Aug. 3 for grading and paving the playgrounds around the Longfellow School building, at South and Hewlett Sts., West Roxbury; bond required, $1,500. Ed. H. Dunn, Chn. Com. on School Houses.

EAST WINDSOR, CONN.—The citizens of Scantic contemplate the construction of a gravel road on Main St., to cost about $3,000.

BROOKLYN, N. Y.—Bids are asked until Aug. 6 for the repaving of sundry streets with asphalt; total bond required, $41,000. Theo. B. Willis, Comr. Cy. Wks., Municipal Bldg.

FLUSHING, N. Y.—At a special election held in this place June 19, it was voted to bond the village for $50,000 for the macadamizing of portions of Bay Side and Lawrence Boulevards, Montauk, Crocheron and Warburton Aves, Flushing; and Main Ave. in Douglas.

JAMAICA, N. Y.—Bids are asked by the supervisors of Queens county until Aug. 6 for paving with new or second-hand granite blocks; also for improving the Newtown & Flushing causeway, as stated in our advertising columns. John J. McLaughlin, County Engr.

NEW YORK, N. Y.—Bids are asked by the Department of Public Parks, Arsenal Bldg., Central Park, for paving with Telford pavement portions of Mosholu Ave. and Parkway, and for macadamizing the roadway of Boston Road in Bronx Park, requiring about 13,400 sq. yds. of telford and 9,800 sq. yds. of macadam pavement; total bond required, $15,000. Pres., Samuel McMillan.——Bids are asked by the Department of Docks, Pier A, North River, until Aug. 3 for furnishing and putting in place about 12,-

500 cu. yds. of small cobble-stones and about 20,000 cu. yds. of rip-rap stones; total bond required, $7,100. Secy., George S. Terry.

NEW YORK, N. Y.—Bids are asked until Aug. 10 for macadamizing the roadway of Boulevard Lafayette, from 11th Ave. to Kingsbridge Road. Chas. H. T. Collis, Comr. Pub. Wks.

OLEAN, N. Y.—Bids are asked until Aug. 4 for constructing a gravel roadway on South St., between Union and Barry Sts., and for about 300 sq. yds. of brick guttering and 900 lin. ft. of curbing. F. L. Bartlett, Comr.; K. E. Allen, Supt. Sts.

OYSTER BAY (L. I.), N. Y.—Bids are asked until Aug. 11 for the regulating, macadamizing, etc., of about 6 miles of the highway in this town, as stated in our advertising columns. Samuel J. Underhill, Supervisor; Wm. H. Bowne, Town Engr., Glen Cove (L. I.), N. Y.

ROCHESTER, N. Y.—Bids are asked until Aug. 2 for paving Lake View Park with Hayden block pavement; estimated cost, $20,500. Thos. J. Neville, Cy. Clk.; Edwin A. Fisher, Cy. Engr.

SCHENECTADY, N. Y.—Bids are asked until Aug. 10 for the grading, curbing and flagging of High St.——Petitions have been sent to the council for the paving of Centre St. with asphalt, upon the present telford pavement as a foundation, and of University Place, from Union St. to Union Ave., upon a 6-in. concrete base, both to be curbed with North River blue stone. Lewis B. Sebring, Cy. Engr., 115½ Wall St.

WALLINGTON, N. Y.—A petition has been presented to the council asking for the bonding of the town for $22,000, to be used in macadamizing the roads. Mayor Koster is said to favor the work.

CAMDEN, N. J.—B. F. Sweeten & Son were awarded the contract July 21 for constructing the new gravel road from Berlin through Waterford and Elm, N. J., to the Atlantic county line, a distance of about 11 1-10 miles, at $13,388. E. T. Gill, Chn. Road Com.

NEWARK, N. J.—Bids are asked until July 29 by the board of street and water commissioners for the grading and curbing of Ashland St.; for 6,000 sq. yds. of brick paving, etc., on Avon Ave., and for the repaving of about 970 sq. yds. of Halsey St. J. Crowell Mundy, Gen. Supt. Wks.

BETHLEHEM, PA.—Bids are asked until Aug. 2 for the purchase of $75,000 of 4% bonds for the macadamizing of sundry streets. H. B. Jones, Chn, Finance Com.; R. E. Neuneyer, Boro. Engr.

BROCKWAYVILLE, PA.—Ira Felt, Clk. Council, informs us that the borough contemplates the building of some macadam streets during the fall, but the work would be done under the direct supervision of the council. Fred Norman, Engr., Brockwayville.

DORRANCETON, PA.—W. G. Payne, J. Ford Dorrance, H. N. Schooley, W. A. Lathrop and George Lee have decided to pave about 2,000 ft. of Wyoming Ave. with telford macadam, at an expense of $16,000.

FREEDOM, PA.—Bids are asked until Aug. 4 for paving about one mile of Main St. with brick. S. Morgan, Pres. Town Council.; J. P. Leaf, Borough Engr., Rochester, Pa.

PHILADELPHIA, PA.—Bids are asked until July 30 for paving, repairing country roads with gravel, paving sidewalks with granolithic cement, and laying asphalt bicycle paths on Broad St. Thomas M. Thompson, Director Pub. Wks., 232 City Hall.——Bids will soon be asked for the paving of Montgomery, Duval, Musgrave, Nash, Sprague, Clarion, 59th, Bonitz, Bruner, Juniata, Jasper, 4th, Dutton and Hoffman Sts., Moyamensing Ave., and the sidewalks on Reed St.; Ritner, 6th, Beulah, Ezekiel, Armatt, Palm, Archer and Marston Sts. and Cemetery Ave.; some to be paved with brick, some with granite, and others with asphalt. Mayor, Charles F. Warwick.

PITTSBURG, PA.—Bids are asked until July 31 for furnishing and delivering 1,000 ft. of curbing for Schenley Park. Edward M. Bigelow, Director Pub. Wks.

WASHINGTON, D. C.—Bids are asked by the district commissioners until Aug. 10 for laying cement sidewalks, and for the grading, macadamizing, etc., of certain suburban streets, as stated in our advertising columns.

TUSCUMBIA, ALA.—Reports state that Colbert county has appropriated $100,000 for the perfecting of the county road system.

AKRON, O.—Bids are asked until Aug. 21 for paving Howard St., from Main to Tallmadge St., with asphalt, as stated in our advertising columns. S. W. Parshall, Cy. Engr.

HAMILTON, O.—Bids are asked until Aug. 21 for paving South 3d St. with asphalt or vitrified brick. M. O. Burns, Clk. Bd. Sewer Comrs; L. A. Dillon, Cy. Engr.

LIMA, O.—The Columbia Construction Co., Syracuse, N. Y., has been awarded the contract for paving West Market St. with asphalt, at about $50,000. L. F. Prevost, Cy. Engr.

MARION, O.—Bids are asked until Aug. 10 for the following work on Bellefontaine Ave: 6,500 cu. yds. grading; 8,000 lin. ft. straight curbing, 110 lin. ft. circular curbing, 300 lin. ft. abutment stone, 16 catchbasins, 5,000 ft. 12-in. drain tile, 300 ft. 10-in. drain tile, and 15,590 ft. yds. of macadamizing. James I. Beatty, Cy. Clk.; J. W. Scott, Cy. Engr.

OBERLIN, O.—Bids are asked until Aug. 16 for the purchase of $15,000 of paving bonds; and until Aug. 17 for furnishing the material and labor necessary for constructing 9,000 sq. yds. of brick pavement. Alfred Fauver, Mayor; W. B. Gerrish, Cy. Engr.

POMEROY, O.—Reports state that Phillip Kelley & Son, Portsmouth, O., have been awarded a contract for paving in this town, to cost about $20,000. E. R. Davenport, Cy. Engr.

TOLEDO, O.—Bids are asked until Aug. 16 for paving Western Ave. with block or brick. Lem P. Harris, Cy. Clk; Wm. G. Clark, Cy. Engr.

SULLIVAN, IND.—It is reported that Mr. Hart, Audr., Switzerland county, has been awarded the contract for constructing 77 miles of free gravel roads in Sullivan county, at $173,000. J. R. Riggs, County Audr.

BLOOMINGTON, ILL.—W. P. Butler, Cy. Engr., informs us that the following brick paving will be done this summer: About 200 ft. of Miller St., 300 ft. of Allen St., 3,000 ft. of East Market St., and about 1,300 ft. of Front St.

GALESBURG, ILL.—The contract for paving Knox and Lombard Sts. has been awarded to Nelch, Patterson & Striffler at $30,820, and for the paving of North Seminary St. to Edwards & Walsh at $31,918. M. J. Blanding, Cy. Engr.

PEORIA, ILL.—Bids are asked until Aug. 3 for about 7,400 sq. yds. of asphalt paving and 4,000 lin. ft. of cement curb and gutter on Ravine Ave., as stated in our advertising columns. M. W. Manning, Comrs. Pub. Wks.; A. D. Thompson, Cy. Engr.

SPRINGFIELD, ILL.—The contract for about 9,000 sq. yds. of brick paving on 8th and Sagamon Sts., has been awarded to Nelch, Patterson & Striffler at $40,000.

DAVENPORT, IA.—Bids are asked until July 31 for about 2,511 sq. yds. of brick paving on Perry St. E. W. Boynton, Comr. Pub. Wks.

SIOUX CITY, IA.—At a recent meeting of the council it was voted to pave a portion of Pierce St., 1,804 ft. long, with asphalt. L. F. Wakefield, Cy. Engr.

ST. PAUL, MINN.—Bids are asked until Aug. 2 for improving and ornamenting Iglehart St. from Cleveland to Wheeler Ave. John Copeland, Pres. Bd. Pub. Wks.; L. W. Rundlett, Cy. Engr.

KANSAS CITY, MO.—Bids are asked until July 31 for the macadamizing, etc., of the Spring Branch Road; also of about 1½ miles of the Milton Welsh Road. Thomas F. Callahan, County Surveyor, Kansas City.

ST. CHARLES, MO.—Bids are asked until Aug. 7 for paving Main St. with brick. Geo. L. Anderson, Cy. Engr.

ST. LOUIS, MO.—Bids are asked until Aug. 6 for the repairing of curbs, gutters and crosswalks on sundry streets, and for constructing new crosswalks of limestone or vitrified brick. Robt. E. McMath, Pres. Bd. Pub. Impvts.

LOS ANGELES, CAL.—West Jefferson St., from Vermont Ave. west to the city limits, will soon be graded and the pavements cemented, at a cost of $30,000. John H. Drain, St. Supt.; J. H. Dockweiler, Cy. Engr.

INGERSOLL, ONT.—Bids are asked until July 30 for macadamizing, etc., a portion of Thames St. in this town. W. R. Smith, Town Clk.; Davis & Van Buskirk, Engrs., Woodstock, Ont.

## MANUFACTURING PLANTS.

SOUTH PORTLAND, ME.—The Lovell Arms & Cycle Co. contemplates the erection of a large factory building, for the manufacture of fire-arms, etc., as an addition to its present plant at this place.

WATERVILLE, ME.—Additions are to be built to the Newport Woolen Co.'s plant to accommodate 350 more hands; estimated cost, $12,000.

PUTNAM, CONN.—Press reports state that the Putnam Manufacturing Co. will build an addition to its factory, providing space for 1,000 looms and 300 more hands.

BROOKLYN, N. Y.—Arbuckle Bros., who are at present erecting a large sugar refinery on John St., have bought the block front on John St., running west on Jay and Pearl Sts.; it is proposed to erect thereon a new 6-story factory building.

YONKERS, N. Y.—A fire in this city July 27 destroyed the hat factory of William Read & Co., on Elm St., causing a total loss of about $400,000; estimated loss on buildings, $240,000.

CAMBRIA, PA.—Plans are being prepared for a brewery building at this place for the Cambria Brewing Co., to cost $80,000. Arch., Otto C. Wolf, 1,345 Arch St., Philadelphia, Pa.

ELIZABETH, PA.—Reports state that a new brick, stone and steel glass factory will soon be erected in this place, at a cost of about $250,000; contracts have been awarded.

ELLWOOD CITY, PA.—It is announced that the Ellwood Tin Plate Co. will erect an addition to its plant in this city, 50 × 75 ft., for the manufacturing of roofing plate.

ERIE, PA.—The contract for erecting a brick, stone and iron brewery in this place for the West End Brewing Co. has been awarded to A. Shaper, at about $20,000.

GREEN LANE, PA.—The Hancock Ice Co., 118 North 12th St., Philadelphia, Pa., will erect a new ice-storage building in this place, having a capacity of 30,000 tons; estimated cost, $20,000.

MYERSTOWN, PA.—The R. Stoever Foundry Co. informs us that the report that an enlargement of its plant will soon be made is a mistake.

READING, PA.—The Union Car Co., Depew, N. Y., has, according to reports, leased the old shops of the Schuylkill Navigation Co. at this place, and will erect an additional $50,000 plant for the manufacture of car wheels.

PHILADELPHIA, PA.—A brick and iron addition to the oil cloth plant of Thomas Potter, Sons & Co., 522 Arch St., will soon be erected at 2d St. and Erie Ave., to cost about $30,000. S. B. McDowell, builde.,

WEST NEWTON, PA.—Reports state that the contract for erecting the building for Hamilton & Co. at this place has been awarded to the Schultz Bridge & Iron Co., McKees Rocks, Pa.

FRANKLINTON, N. C.—Our correspondent informs us that the Sterling Cotton Mills Co. has decided to erect a machine shop in connection with its mill, and that latnes and a full equipment for the same have yet to be purchased.

WALHALLA, S. C.—At a meeting of the stockholders of the Walhalla Cotton Mills Co. it was decided to make extensive additions to the company's plant at this place. Secy., C. W. Pitchford.

CORINTH, MISS.—The Corinth Cotton Mills Co. will soon erect a plant at this place; the full equipment has yet to be contracted for. W. J. Adams, care of Adams Machine Co., Corinth, is interested.

PEORIA, ILL.—The main building of the Peoria Grape Sugar Co. was destroyed by fire July 23, causing a loss of about $500,000; insurance, about $300,000.

KAUKAUNA, WIS.—A fire in this city July 26 destroyed the plant of the Badger Paper Co., causing a loss of about $250,000; insurance, $200,000.

PINE BLUFF, ARK.—Reports state that a cotton seed oil plant, with a capacity of 60 tons of seed a day, will be erected in this place, to cost $60,000. D. W. Wright, Little Rock, Ark., and J. R. Fordyce, St. Louis, Mo., are interested.

EAST ANGUS, QUE.—The saw mill, pulp mill and blacksmith shop belonging to the Royal Paper Mill Co. were destroyed by fire July 17, causing a loss of about $150,000.

## GAS PLANTS.

AMSTERDAM, N. Y.—Reports state that the American Gas Co., Philadelphia, Pa., has been awarded the contract for reconstructing the generating plant of the Chuctanunda Gas Lighting Co. of this place.

HORNELLSVILLE, N. Y.—Reports state that two new gas companies are to be organized here and new wells sunk. The pressure of gas at the Richardson well has been tested and is said to be sufficient to supply the Richardson shoe factory with fuel.

SARATOGA, N. Y.—The Saratoga Gas, Electric Light & Power Co. is said to be rebuilding and rearranging its plant. The Berlin Iron Bridge Co., East Berlin, Conn., has the contract for the steel work.

LANCASTER, PA.—Reports state that the National Transit Pipe Line Co. has begun the construction of a pipe line from Millway to New York, a distance of about 130 miles. The line will not be tapped at any point and the oil will be pumped direct, there being no intermediate pumping stations.

YORK, PA.—The People's Gas Co. has been organized and has applied for a franchise, according to reports. Pres., C. A. Eisenhart; Secy., A. Lafean.

DELAWARE CITY, DEL.—This city is considering the question of establishing a gas plant, according to reports. Mayor, Geo. S. Money.

CINCINNATI, O.—Local papers state that the Cincinnati Gas Light & Coke Co., proposes to construct a gas-holder having a retaining capacity greater than any other holder in the west.

NEW COMPANIES.—Santa Barbara Oil & Mining Co., Santa Barbara, Cal.; $100,000, with $90,500 paid in. C. S. Fay, S. W. Knapp, C. C. Felton, J. Musgrave.

## MISCELLANEOUS CONTRACTS.

DREDGING.—Brooklyn, N. Y.—Bids are asked until July 31 for dredging, etc., at the navy yard. E. O. Matthews, Ch. Bureau Yards and Docks, Washington, D. C.

RETAINING RIVER BANK.—Wilkes-Barre, Pa.—It is reported that plans are being prepared by the city engineer to prevent the caving of the river banks.

FIRE APPARATUS.—Chicago, Ill.—Bids are asked until July 30 for furnishing three first size steam fire engines. D. J. Swenie, Fire Marshal.

STONE WALL.—Pittsburg, Pa.—Bids are asked until Aug. 5 for constructing a stone wall at Police Station No. 8. Arch., H. S. Blair; J. O. Brown, Dir. Dept. Pub. Safety.

BONDS.—Oyster Bay (L. I.), N. Y.—Bids are asked until July 31 for the purchase of $50,000 of town bonds. Samuel J. Underhill, Supervisor, Jericho, Queens county, N. Y.

LEVEE.—Memphis, Tenn.—Bids are asked until Aug. 11 for constructing levee in Third District, as stated in our advertising columns. Lieut. H. C. Newcomer, U. S. Engr., Memphis.

TELEPHONE LINE.—Hagerstown, Md.—It is reported that R. B. Hazlett will construct a long distance telephone line to connect the towns in Washington county, to cost $30,000.

DREDGE.—Wilmington, Del.—Bids are asked by the Charles Warner Co., Wilmington, until July 21 for furnishing a two-bucket dredge for work at Bulk Head Bar, near Delaware City.

DREDGING.—New York, N. Y.—Bids are asked until Aug. 6 for 100,000 cu. yds. of mud dredging at 34th St. and the North River. Geo. S. Terry, Secy. Dept. of Docks, Pier A, Battery Place.

DRAINAGE.—Hoboken, N. J.—It is reported that steps will be taken to establish a pumping station and drain the meadow section in the vicinity of this city. Mayor Fagan may be addressed.

GUN FORGINGS.—Washington, D. C.—Bids are asked until Aug. 19 for furnishing the ordnance department with 57 sets of steel forgings for 3.2-in. field guns. Brig.-Gen. D. W. Flagler, Ch. Ordnance.

CLOSING CREVASSES, ETC.—Memphis, Tenn.—Bids are asked until Aug. 16 for closing crevasses, enlarging and repairing levees, etc., as stated in our advertising columns. Lieut. M. M. Patrick, Memphis.

EXTENSION OF BULKHEAD.—Stockton, Cal.—Bids are asked until July 26 for furnishing the material and labor required in the extension of the permanent bulkhead on the south side of the Stockton channel; bond, $4,000. T. B. Littleton, Secy. Bd. Pub. Wks.

BOILERS, ETC.—New York, N. Y.—Bids are asked until Aug. 4 for supplying and installing in the army building two new boilers and for other work in engine room. A. S. Kimball, D. Q. M. G., Army Building, Whitehall St.

SUPPLIES.—New York, N. Y.—Bids are asked by the department of docks, pier A, until Aug. 3, for furnishing hardware, tools, woodenware, rubber goods, paints, oils, ropes, cordage, steam fittings and machine shop supplies. Geo. S. Terry, Secy. Dock Comrs.

DAM.—Mechanicville, N. Y.—It is reported that work will be begun at once on the proposed dam across the Hudson River, below Mechanicville. A contract for furnishing 40,000 barrels of cement has been awarded. G. N. Fussman, Binghamton, N. Y., may be addressed.

PNEUMATIC TUBES.—Boston, Mass.—The contract for carrying the mails from the city post-office to the Northern Union Ry. Station in a pneumatic tube, which is to be 8 3-16 ins. in diameter, and will cost $18,000, has been awarded to the Boston Pneumatic Transit Co. 40 State St., St., Boston.

CLEARING SITE.—Seattle, Wash.—The following bids were received by Capt. W. W. Robinson, U. S. A., Haller Bldg., Seattle, for clearing 97 acres of land at Magnolia Bluff for the military post:

| | |
|---|---|
| M. Dow & Co., Seattle (accepted) | $9,409 |
| Bringham, Keasal & Co., Tacoma, Wash | 15,035 |
| Peter Henning | 22,146 |
| Nommensen & Gibson | 14,300 |
| D. McL. Brown | 14,065 |
| James R. Taylor | 11,333 |
| W. E. Boone | 10,960 |

SEA WALL.—Boston, Mass.—The following bids were received by E. C. Hedges, Chn. Park Comrs., July 19, for finishing the sea wall and grading at the Strandway:

| | |
|---|---|
| Simon J. Donovan, Winthrop, Mass | $79,350 |
| Hugh Farrell, Boston | 84,632 |
| Perkins, White & Co., Boston | 87,600 |
| R. B. Malone, Cambridge, Mass | 89,030 |
| Dennis F. O'Connell, Boston | 92,000 |
| Richardson & Young, Chicago | 97,000 |
| C. A. and C. E. Trumbull, Boston | 98,867 |
| W. T. Simmons, Boston | 99,735 |

EXCAVATION.—San Francisco, Cal.—The following bids were received July 22 by the acting supervising architect, Washington, for excavating temporary drainage work and for steel foundations for the U. S. public building at San Francisco, Cal:

| | | Time. |
|---|---|---|
| L. L. Leach & Son, Chicago | $47,985 | 4 mos. |
| Matthew McGowan, San Francisco | 37,900 | 4 " |
| Geo. Goodman, San Francisco | 41,277 | 4 " |
| J. H. McKay, San Francisco | 46,400 | 4 " |
| Thos. Butler, San Francisco | 38,898 | 4 " |
| Rae Bldg. & Cntractg. Co., San Francisco | 39,990 | 4 " |
| Warren & Malley, San Francisco | 38,792 | 4 " |
| Cotton Bros. & Co., Oakland, Cal | 41,988 | 4 " |
| Warren B. English, Oakland, Cal | 48,868 | 4 " |
| San Francisco Bridge Co., San Francisco | 36,830 | 4 " |
| Calif. Bridge & Construction Co., Oakland | 57,273 | 4 " |

PARK WORK.—New York, N. Y.—Bids are asked by the department of public parks, Central Park, until Aug. 2 for improving St. John's Park, in the 9th Ward, and for boring through earth, mud, rock and other materials to bed rock at and in the vicinity of the intersection of Riverside Drive and 96th St.

REPAIRING PLATFORM.—New York, N. Y.—Bids are asked until Aug. 3 by the dock department for furnishing and putting in place cobblestones and rip-rap; repairing the platform at the foot of Seventh Ave., Harlem River. The following material will be required: 68,727 ft., B. M., of lumber; 92 piles; 4,850 lbs. of dock spikes and nails; 1,115 lbs. of iron screw bolts, etc. Geo. S. Terry, Secy., Pier A, Battery Place.

## CONTRACT PRICES.

SEWERS.—Hackensack, N. J.—Lemuel Lozier, Engr., Hackensack, informs us that the following bids were received July 12 for furnishing the materials and for constructing brick and pipe sewers, as advertised in Engineering News:

Bids Opened at Hackensack, N.J., July 12 for Constructing Sewers.

| Quantities. | | | Patk. T. Plunkett, 1060 Summit Av., Jersey City. | Chapman & Fitch, 253 Broadway, New York. | S. W. Frescoln, Reading, Pa. | P. H. Harrison & Sons, St. Paul Bldg., New York. | Henry & McGivney, 1 Montgomery St., Jersey City. | Eyre & Wallace, Chester, Pa. | Fredk. R. Pratt, Prudential Bldg., Newark, N. J. |
|---|---|---|---|---|---|---|---|---|---|
| Sewer: 66-in. circular | 1,074.5 | ft.... | $9.80 | $10.75 | $11.58 | $12.79 | $11.50 | $20.23 | $13.45 |
| 60-in. circular | 1,107.1 | " ... | 7.60 | 6.60 | 7.21 | 8.40 | 11.00 | 15.87 | 7.50 |
| 52-in. " | 600.9 | " ... | 4.40 | 4.50 | 3.97 | 5.99 | 7.00 | 6.54 | 4.30 |
| 48-in. " | 647.2 | " ... | 3.84 | 4.10 | 3.50 | 5.35 | 5.00 | 6.54 | 3.87 |
| 44-in. " | 646.17 | " ... | 3.40 | 3.60 | 3.10 | 4.44 | 4.00 | 5.94 | 3.50 |
| 32-in. " | 249.72 | " ... | 2.80 | 2.90 | 2.45 | 3.41 | 3.50 | 5.24 | 2.75 |
| 24x36-in., egg-shaped | 253.15 | " ... | 2.85 | 3.00 | 2.34 | 3.20 | 3.50 | 3.00 | 3.00 |
| 20x30-in. " | 420.25 | " ... | 3.20 | 3.00 | 2.44 | 3.90 | 3.00 | 3.00 | 2.86 |
| 24-in. pipe | 1,752.2 | " ... | 1.35 | 1.40 | 1.53 | 1.80 | 2.25 | 2.24 | 1.76 |
| | | | 1.45 | | 1.52 | 1.70 | | | |
| 21-in. " | 1,019 | " ... | 1.18 | 1.35 | 1.20 | 1.80 | 2.19 | 1.94 | 1.40 |
| | | | 1.25 | | 1.18 | 1.40 | | | |
| 18-in. " | 335 | " ... | 1.10 | 1.10 | .85 | 1.25 | 1.75 | 1.65 | 1.05 |
| 12-in. " | 1,150 | " ... | .90 | 1.10 | 1.00 | .75 | 1.75 | 1.25 | .70 |
| 6-in. " | 1,000 | " ... | .25 | .65 | .60 | .50 | 1.65 | .60 | .40 |
| Catchbasins | 50 | each. | 75.00 | 52.50 | 80.00 | 90.00 | 85.00 | 75.00 | 80.00 |
| Manholes for brick sewers | 23 | " | 34.00 | 35.00 | 38.00 | 40.00 | 44.00 | 55.00 | 50.00 |
| " " pipe " | 18 | " | 34.00 | 25.00 | 44.00 | 40.00 | 25.00 | 40.00 | 40.00 |
| 4-in. drain tile | 4,400 | " ... | .15 | .10 | .08 | .12 | .90 | .20 | 10.00 |
| Yellow pine timber | 11 | M. ft. | 22.00 | 35.00 | 35.00 | 35.00 | 35.00 | 27.00 | 33.00 |
| Spruce timber | 6 | " | 19.00 | 30.00 | 27.00 | 27.00 | 33.00 | 21.00 | 30.00 |
| Hemlock timber | 141 | " | 16.00 | 27.00 | 23.00 | 20.00 | 27.00 | 18.00 | 25.00 |
| Sheeting and shoring | 120 | " | 20.00 | 20.00 | 23.00 | 18.00 | 33.00 | 12.00 | 30.00 |
| Total | | | $47,422 | $49,718 | $53,409 | $60,224 | $69,825 | $82,575 | $101,835 |
| Days to complete | | | 125 | 150 | 100 | 100 | 140 | 300 | 300 |

SEWERS.—Frankfort, Ind.—Alonzo J. Hammond, Cy. Engr., informs us that the following bids were received July 14 for constructing 9,300 ft. of pipe sewers:

| Quantities. | | C. H. Condon, Frankfort, Ind. | Jno. A. Ross, Frankfort, Ind. | E. Nicholson, Kalamazoo, Mich. | Mansfield & Allen, Indianapolis, Ind. |
|---|---|---|---|---|---|
| Snipe Run: | | | | | |
| 12-in. | 510 ft. | $0.87[2] | $0.75 | $0.82 | $1.35 |
| 6-in. | 25 " | .60 | .65 | .54 | .50 |
| Manholes | 2 | 30.00 | 25.00 | 35.00 | 43.00 |
| Cast iron | 5,880 lbs. | .02 | .06 | .02½ | 1.75[1] |
| Total | | $636 | $862 | $649 | $934 |
| East Clinton St.: | | | | | |
| 10-in. | 2,800 ft. | $0.70 | $0.60 | $0.44[2] | $0.54¾ |
| 6-in. | 1,462 " | .50 | .55 | .36 | .38 |
| Manholes | 6 | 28.00 | 25.00 | 30.00 | 37.50 |
| Lampholes | 5 | 10.00 | ..... | 10.00 | 8.69 |
| Flushtanks | 1 | 60.00 | 65.00 | 75.00 | 74.00 |
| Total | | $2,969 | ..... | $2,063 | $2,386 |
| Armstrong St.: | | | | | |
| 10-in. | 1,210 ft. | $0.68 | ..... | $0.48[2] | $0.65 |
| 8-in. | 2,730 " | ..... | ..... | .48 | .58 |
| 6-in. | 775 " | .50 | ..... | .38 | ... |
| Manholes | 12 | 28.00 | ..... | 30.00 | 38.00 |
| Lampholes | 6 | 11.00 | ..... | 10.00 | 8.70 |
| Flushtanks | 3 | 55.00 | ..... | 75.00 | 76.00 |

[1] Per ft. [2] Awarded contract.

BRICK AND PIPE SEWERS.—Kansas City, Mo.—H. A. Wise, Cy. Engr., received the following bids July 14 for furnishing the materials and for constructing brick and pipe sewers in District No. 61; all local bidders; R. J. Boyd Paving & Contracting Co. awarded contract:

| Quantities. | | Michael Walsh. | R. J. Boyd Pav. & Cont. Co. | Cotter, McDonald & Co. |
|---|---|---|---|---|
| 21-in. pipe | 305 ft. | $2.15 | $1.66 | $2.41 |
| 18-in. " | 170 " | 1.85 | 1.40 | 2.09 |
| 15-in. " | 465 " | 1.90 | 1.50 | 2.06 |
| 12-in. " | 970 " | 1.20 | 1.10 | 1.46 |
| 10-in. " | 325 " | 1.35 | 1.25 | 1.56 |
| 8-in. " | 142 " | .75 | .75 | 1.05 |
| 4-ft. brick | 517 " | 4.00 | 4.89 | 7.61 |
| Spec'l manhole | 1 | 130.00 | 50.00 | 85.00 |
| Special conns. | 1 | 50.00 | 100.00 | 75.00 |
| Catchbasin connections: | | | | |
| 15-in. pipe | 155 ft. | .50 | .55 | 1.18 |
| 12-in. " | 270 " | .40 | .45 | 1.35 |
| 10-in. " | 210 " | .35 | .40 | 1.27 |
| 18-in. " | 160 " | .65 | .70 | 1.79 |
| Catchbasin | 9 | 20.00 | 30.00 | 18.00 |
| Manholes | 14 | 37.00 | 40.00 | 35.00 |
| Rock excav. | 1,000 cu. yds. | 2.75 | 2.00 | .25 |
| Lumber | 10,000 ft. B.M. | 20.00 | 30.00 | 25.00 |
| Alley drop | 1 | 6.00 | 5.00 | 10.00 |
| Total | | $9,828 | $9,237 | $10,477 |

DRAINAGE SYSTEM.—New Orleans, La.—At a meeting of the Drainage Commission, July 22, the bid of the National Contracting Co. of New York, represented by F. P. Mullen, 708 Hennen Building, New Orleans, was accepted. The work to be performed under the accepted bid comprises: A central electric power station, three pumping stations, lined and covered canals and open and unlined canals. The contract price aggregates a sum of $1,257,055. L. W. Brown, formerly city engineer, and under whose direction were prepared the drainage plans, a portion of which will now be executed, will be chief engineer for the successful bidder. The specifications provide for the signing of the contract within ten days and work is to be commenced within 30 days thereafter. Work will probably be started very shortly.

GRADING AND PAVING.—Brooklyn, N. Y.—T. B. Willis, Comr. Cy. Wks., received the following bids July 13 for grading and paving:

| Bidder. | Grading. | New curb, lin. ft. | Macadam paving, sq. yd. | Belgian block pav., sq. yd. | Bluestone bridging, sq. yd. | Concrete curb and gutter, lin. ft. |
|---|---|---|---|---|---|---|
| Harris & Maguire | $900 | $0.60 | $0.84 | $1.32 | $0.37 | $1.00 |
| McKeever & Bro. | 200 | 0.60 | 1.00 | 1.25 | 0.35 | 0.95 |
| Michael J Dady | 750 | 0.70 | 0.79 | 1.00 | 0.50 | 1.00 |
| Norton & Gorman | 540 | 0.65 | 0.69 | 1.35 | 0.40 | 1.10 |

PIPE SEWERS.—Kansas City, Mo.—The following bids were received by H. A. Wise, Cy. Engr., July 14 for constructing sewers in District No. 168, and contract awarded to Michael Walsh; all local bidders:

Bids Received July 14 at Kansas City, Mo., for Constructing Sewers in District No. 168.

| Bidder. | Excavation, 1,100 cu. yds. | Pipe. 12-in., 533 ft. | Pipe. 10-in., 680 ft. | Catchbasin connections 15-in. 162 ft. | Catchbasin connections 12-in., 25 ft. | Catchbasin connections 10-in., 75 ft. | Manholes, 5 each. | Lumber, 5,000 ft. | Catchbasins, 3 each. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|
| W. W. DeWolf & Co. | $0.05 | $3.07 | $3.02 | $0.70 | $0.55 | $0.50 | $47.00 | $10.00 | $20.00 | $4,222 |
| Michael Walsh | 2.25 | .95 | .80 | .55 | .45 | .40 | 40.00 | 20.00 | 20.00 | 3,990 |
| R. J. Boyd Paving & Cont. Co. | 2.00 | 1.27 | 1.00 | .60 | .45 | .40 | 40.00 | 30.00 | 30.00 | 4,109 |
| Robert Gray & Co. | 2.85 | .75 | .65 | .45 | .45 | .35 | 42.00 | 20.00 | 18.00 | 4,428 |

STEAM POWER AND PUMPING STATIONS.—New Orleans, La.—The following bids were received by the drainage board July 12 for the execution of Contract B, to include the St. Louis steam power and pumping station No. 2, the Metairie steam power and pumping station No. 6, and the Orleans steam power and pumping station No. 7, as advertised in Engineering News:

Bids Received July 12 at New Orleans, La., for the Erection of Steam Power and Pumping Stations.

| Approximate quantities furnished to bidders. | | Consolidated Engineering Co. Quantities. | Consolidated Engineering Co. Amount. | N. Y. Dredging Co. Quantities. | N. Y. Dredging Co. Amount. | National Contracting Co. Quantities | National Contracting Co. Amount. |
|---|---|---|---|---|---|---|---|
| Excavation delivered on bank; meas. in pit. | 30,000 cu. yds. | 22,300 | $0.75 | 34,700 | $0.75 | 25,800 | $0.20 |
| Filling, measured in work | 3,000 " " | 1,000 | .28 | 1,540 | .30 | 1,200 | .50 |
| Haul, spoil bank per 1,000 ft. net cu. yd. | 10,000 " " | 6,000 | .34 | 10,000 | .20 | 10,000 | .30 |
| Pump'g sta. No. 2, steam install. complete abv. floor line. | | ..... | 137,458 | ..... | 105,500 | ..... | 81,500 |
| " No. 6, " " " | | ..... | 174,504 | ..... | 119,500 | ..... | 129,500 |
| " No. 7, " " " | | ..... | 174,504 | ..... | 119,500 | ..... | 129,500 |
| Brick: | | | | | | | |
| Laid in mortar—1 Am. nat. cem, 2 sand | 6,300 cu. yds. | 2,100 | 7.45 | 2,900 | 12.00 | 1,950 | 6.75 |
| " " " 1 imp. Prtld cem, 3 sand | Alt. | 2,100 | 7.69 | 2,900 | 12.50 | 1,950 | 7.20 |
| " " " 1 imp. Prtld cem, 2 sand | 100 " " | 170 | 8.18 | 170 | 14.00 | 170 | 7.50 |
| Concrete with mortar—1 A.nat.cem,2 sand | 3,100 " " | 2,350 | 7.35 | 2,650 | 8.50 | 3,560 | 4.40 |
| " " " 1 imp.P.cem,3 snd | Alt. | 2,850 | 9.78 | 2,650 | 9.00 | 3,560 | 5.10 |
| " " " 1 imp.P.cem,3 snd | 100 " " | 100 | 9.98 | 100 | 10.00 | 100 | 6.00 |
| Quarry-faced stone | 100 cu. ft. | 100 | 1.72 | 100 | .60 | 100 | 2.25 |
| Coping stone | 100 " " | 100 | 2.10 | 100 | 1.50 | 100 | 3.85 |
| Dressing stone | 100 sq. ft. | 100 | 2.10 | 100 | 1.50 | 100 | 1.00 |
| Concrete pavemt. bot. canals & bldg floors | 4,200 sq. yds. | 5,850 | 1.44 | 6,100 | 2.00 | 5,100 | 1.15 |
| Cement pavement on sidewalks | 300 " " | 310 | 1.44 | 310 | 1.25 | 310 | 1.45 |
| Rolled steel, various sections & buckl plts | 60 tons | 60 | 34.50 | 60 | 60.00 | 60 | 55.00 |
| Wrought iron forgings, rods, bolts, etc. | 1 " | 1 | 49.75 | 1 | 60.00 | 1 | 95.00 |
| Cast iron | 2 " | 2 | 39.75 | 2 | 60.00 | 2 | 75.00 |
| Yellow pine timber, driven as sheet piling | 46,000 ft. B.M. | 27,600 | 25.00 | 50,000 | 27.00 | 24,000 | 30.00 |
| " " " in foundations | 337,000 " " | 404,000 | 25.00 | 537,000 | 27.00 | 428,000 | 22.00 |
| " " " piling driven in foundations | 160,000 lin. ft. | 107,000 | .19 | 143,900 | .25 | 119,100 | .17 |
| Dead oil of coal tar, injected | 40,000 lbs. | 34,000 | .0344 | 62,500 | .04 | 30,000 | .02 |
| 36-in. vitrified clay pipe | 100 lin. ft. | 100 | 3.95 | 100 | 3.00 | 100 | 2.75 |
| 30-in. " " " | 100 " " | 100 | 2.98 | 100 | 2.25 | 100 | 1.60 |
| 24-in. " " " | 100 " " | 100 | 1.36 | 100 | 1.50 | 100 | 1.00 |
| 18-in. " " " | 100 " " | 100 | .91 | 100 | 1.00 | 100 | .90 |
| 15-in. " " " | 100 " " | 100 | .57 | 100 | .75 | 100 | .80 |
| New asphalt pavement laid | 400 sq. yds. | 400 | 3.50* | 400 | 4.00 | 400 | 3.07 |
| Behind retaining walls: | | | | | | | |
| Broken stone or clean gravel | 600 cu. yds. | 290 | 1.80* | 350 | 1.50 | 340 | 1.80 |
| Oyster shells | Alt. | 290 | 1.00* | 350 | 1.00 | 340 | 1.00 |
| Lumber for sheeting, bracing, etc. | 120,000 ft. B.M. | 168,000 | 25.00* | 235,000 | 27.00 | 160,000 | 28.00 |
| Total | | | $636,179 | | $574,514 | | $440,755 |

* No bid furnished, price estimated. Note.—The computed cost of the buildings and machinery of the several pumping stations is as follows: Consolidated Engineering Co., $486,466; N. Y. Dredging Co., $344,500; National Contracting Co., $320,500. The cost of the foundations and basins has been computed on the basis of the specifications of the commission, modified as far as was indicated to be necessary by the details and dimensions submitted with the several plans applying the prices contained, for the units of materials, in the several bids.

ASPHALT AND BRICK PAVING.—Lima, O.—Contracts were awarded July 12 to Jas. Wildes & Son, of Akron, O., for brick paving in three streets, on the Townsend block, and the Assyrian asphalt filler. Wassell block was selected for Market St. 2,375 sq. yds., and a coal tar filler. Bids on one mile of asphalt paving on W. Market St., viz.: Columbia Construction Co., Syracuse, N. Y., Trinidad Land Asphalt, $1.80½ a sq. yd. (accepted); Barber Asphalt Paving Co., Trinidad Pitch Lake Asphalt, $2.14; E. M. Ayers, Zanesville, O., Standard Asphalt (California), $2.19. The following are the bids received July 7 for brick paving on North Main St.:

| Quantities. | | E. M. Ayers, Zanesville, O. | Jas. Wildes & Son, Akron, O. | T. B. Townsend, Zanesville, O. | Ireland, Manship & Kidemour. |
|---|---|---|---|---|---|
| North Main St.: | | | | | |
| Excavation | 4,170 cu. yds. | $0.32 | $0.25 | $0.30 | $0.35 |
| Concrete | 10,870 sq. yds. | .40 | .40 | .40 | .45 |
| Stone abutments | 290 lin. ft. | .20 | .42 | .50 | .55 |
| Header stone | 350 " " | .15 | .20 | .20 | .25 |
| Curb, 6 × 20 ins. | 3,210 " " | .50 | .49 | .45 | .40 |
| Circle, 6 × 12 ins. | 150 " " | .70 | .60 | 1.00 | .90 |
| Catch basins, 12, each | | 30.00 | 15.00 | 25.00 | 30.00 |
| Iron gutter plates, a lb. | | .03 | .05 | .05 | .06 |
| Brick, 10,870 sq. yds. | | | | | |
| Jones block, a sq. yd. | | .87 | .... | .... | .85 |
| Wassel block | | .86 | .67 | .... | .85 |
| Athens block | | | .63 | .... | .88 |
| Ironton block | | | .69 | .... | .80 |
| Metropolitan | | | .69 | .... | .... |
| Townsend block | | | .62 | .... | .83 |
| McManigal block | | | .68 | .... | .88 |
| Blue granite block | | | .67 | .... | .... |
| Wooster block | | | .64 | .... | .... |
| Hallwood block | | | .65 | .... | .... |
| Townsend repress | | | .... | .80 | .... |
| Filler, 10,870 sq. yds. | | | | | |
| Tar | | .15 | .13 | .10 | .12 |
| Cement | | .12 | .09 | .08 | .09 |
| Murphy grouting | | .15 | .16 | .15 | .15 |
| Sand | | .03 | .03 | .02 | .03 |
| Assyrian asphalt | | .20 | .14 | .... | .... |

RETAINING WALL.—Philadelphia, Pa.—The following bids were received by Thos. M. Thompson, Dir. Pub. Wks., July 13 for constructing a retaining wall on one side of the new Roxboro reservoir:

| Items. | R. P. Bemis. | T. C. Cooper. | F. J. Gill & Co. | M. McManus. |
|---|---|---|---|---|
| Excavation, cu. yd. | $0.20 | $0.50 | $0.65 | $0.35 |
| Facing masonry, cu. yd. | 7.00 | 7.50 | 5.70 | 6.50 |
| Back'g foundat'n mas., cu. yd. | 5.90 | 4.80 | 5.85 | 3.70 |
| Reconst'n top wall, cu. ft. | 1.00 | 2.50 | 3.50 | 2.50 |
| New coping, lin. ft. | 1.50 | 3.00 | 2.25 | 1.25 |
| Time of completion, days | 49 | 90 | 60 | 60 |

BRICK AND ASPHALT PAVING.—Erie, Pa.—We are informed that the following bids were received July 15 for 3,370 sq. yds. of brick and asphalt paving, as advertised in Engineering News: Sheet asphalt paving, which includes 1,000 cu. yds. excavation in sandy soil, grading, ballast, curbing, etc., Mayer Bros., Erie (accepted), $1.83; C. J. Williams, Utica, N. Y., $1.85. Brick paving, Jno. McCormick & Son, Erie, $1.62 Canton shale repressed red granite, includes 2,900 cu. yds. excavation, etc. (accepted); $1.59, Canton No. 1 vitrified; $1.59½ Mack wire cut No. 1, and $1.62½ machine repressed; Mayer Bros., Erie, $1.73 on any make of repressed brick.

**EXPANDED METAL.**

PITTSBURGH, 531 Wood Street.
NEW YORK, 250 Broadway.

**STEEL LATH**

For Plastering, Fireproofing Beams, Columns, Partitions, etc.

**CENTRAL FIREPROOFING COMPANY,**

Manufacturers and Contractors for Erection of Hollow Tile and Porous Terra Cotta . . **FIREPROOFING**

No. 874 BROADWAY, NEW YORK. Henry M. Keasbey, President.

**GALESBURG VITRIFIED BRICK CO.**

Paving Brick Exclusively... GALESBURG, ILL.

**MUNICIPALITIES**

Having Contracts To Let should address

**T. W. KINSER & SONS,**

609-613 Chicago Stock Exchange, Chicago.

SPECIALTIES: Sewers, Water-Works, Paving Railroads, Fills, Excavating and Masonry.

**THE T. A. GILLESPIE COMPANY,**

Engineers and Contractors.

Manufacturers of

RIVETED STEEL PIPE.

Pittsburg Office: Westinghouse Bldg.
New York Office: Havemeyer Bldg

**Phœnix Construction Co.,**

908 Fisher Building, Chicago.

We do all classes of heavy construction; Water-Works, Electric and Steam Railroads, Sewers, etc. We invite correspondence.

**UTICA PIPE FOUNDRY CO.**

*CHARLES MILLAR & SON, Selling Agents, UTICA, N. Y.*

Cast Iron Pipe and Specials, Hydrants, Gates, Pig Lead, etc. AKRON SEWER PIPE. Lead Pipe. Plumbers' Materials.

**THE ACME POWDER CO.,**
**MANUFACTURERS OF EXPLOSIVES,**
806 DUQUESNE WAY, PITTSBURG, PA.

**EXPLOSIVES**

**ARTHUR KIRK & SON,**
**PITTSBURG, PA.**

Powder, Dynamite, Rock Drills, Air Compressors, Rock Breakers, Safety Fuses, Electric Batteries, Miners' Squibs.

**WALDO BROTHERS,**
ROSENDALE AND PORTLAND CEMENTS
BOSTON, MASS.
CONTRACTORS' AND MASONS' SUPPLIES
Largest Stock in N.E.
SEND FOR CATALOGUE

N.E. AGTS. AKRON SEWER PIPE

Chimney Tops. **KENNEDY, KLING & CO.** SEWER PIPE 150 FRANKSTOWN AVE PITTSBURG, PA. Fire Linings.

FOR INFORMATION ABOUT

**U. S. MAIL CHUTES**

WHICH ARE

A necessity in Office Buildings and Hotels, write to the sole makers,

THE CUTLER MFG. CO., ROCHESTER, N.Y
PATENTED. AUTHORIZED.

**Columbus Office: 812 North High St.**

*Quality Unsurpassed. Write for Prices.*

**Chicago Office: 918 Chamber of Commerce.**

**THE CAZIN WHEEL**

(Patented March 16, 1897)

Operated by Water or Steam.

The only Power Wheel complying with requirements to maximum efficiency.

Send for Pamphlet.

**American Impulse Wheel Co.**

OF NEW YORK.

**No. 120 Liberty Street.**


OFFICE CONSTRUCTING QUARTERMASTER, JEFFERSON BARRACKS, MO., July 5, 1897.—Sealed proposals will be received here until 11 o'clock a. m., August 4, 1897, and then opened, for constructing at Jefferson Barracks, Mo., a GUARD HOUSE, THREE DOUBLE SETS OFFICERS' QUARTERS and a DOUBLE BARRACK; also PLUMBING, HEATING AND GASPIPING same, all according to plans and specifications to be seen here. Proposals and instructions to bidders furnished on application. Government reserves the right to reject any or all proposals, or any part thereof. JNO. T. KNIGHT, Capt. and Asst. Qr. Mr., U. S. A. 27-4t


**HUDSON RIVER BY DAYLIGHT.**

The Most Charming Inland Water Trip on the American Continent.

The Palace Iron Steamers

**"NEW YORK" AND "ALBANY,"**

**OF THE HUDSON RIVER DAY LINE,**

DAILY, EXCEPT SUNDAY.

Leave New York, Desbrosses St....8.40 a. m.
" New York, W. 22d St., N. R..9.00 "
" Albany, Hamilton St.....8.30 "

Landing at Yonkers, West Point, Newburgh, Poughkeepsie, Kingston Point, Catskill and Hudson.

The Attractive Tourist Route to the **Catskill Mountains, Saratoga, and the Adirondacks, Hotel Champlain, and the North, Niagara Falls and the West.**

Through Tickets Sold to All Points.

Restaurants on Main Deck. Orchestra on each Steamer.

Send 6c. in postage for "Summer Book."

F. B. HIBBARD, Gen'l Passenger Ag't.
E. E. OLCOTT, Gen'l M'g'r,
Desbrosses Street Pier, New York.


**DITCH.**

MOMENCE, ILL., July 17, 1897.

Sealed proposals will be received by the Drainage Commissioners until Aug. 12, 1897, at 1 o'clock p. m., for the construction of a main ditch and six branches in the Hopkins Drainage District in Kankakee County, State of Illinois. The ditch and branches will be about fifteen miles long and constructed by dredge, and will require the removal of approximately 320,000 cubic yards of earth. Said bids will be opened at the office of B. F. Gray, over Exchange Bank, city of Momence, Ill.

Plans and profiles and specifications of the proposed work may be obtained by calling at or addressing the office of J. L. Clark, Engineer of the said District at Momence, Illinois.

Each bid must be accompanied by a check certified for $500.

W. F. KENEGA, B. F. GRAY, J. L. GOBEN, } Commissioners.

J. L. CLARK, Engineer.

T. P. BONFIELD and W. C. KENEGA, Attorneys.

29-3t

**SANITARY DISTRICT OF CHICAGO.**

TO CONTRACTORS.

Sealed proposals, addressed to the Board of Trustees of the Sanitary District of Chicago, and endorsed "Proposals for supplying and erecting certain bridge substructure along the line of the Main Drainage Channel," will be received by the clerk of said sanitary district, Room 1110, Security Building, Chicago, Ill., until 12 m. (standard time) of Wednesday, the 8th day of September, A. D. 1897, and will be publicly opened by said Board of Trustees at the regular meeting held that day, or at a special meeting held for that purpose.

The bridges for which the said tenders are invited are four in number, and their sites are as follows:

Chicago, Madison & Northern R. R. bridge near east end of contract section "N."

Atchison, Topeka & Santa Fe Railway bridge at west end of contract section "N."

Atchison, Topeka & Santa Fe Railway bridge near east end of contract section "G."

Chicago & Calumet Terminal Railway bridge near west end of contract section "E."

The work for which said tenders are invited is the furnishing, delivering and building in place one (1) center pier, and two (2) wing abutments for each bridge, as per plans and specifications to be furnished by the chief engineer.

Each bridge will be treated as a single contract in canvassing proposals and making awards.

Each bid must be accompanied by a certified check or cash to the amount of $1,000.

All certified checks must be drawn on some responsible bank doing business in the city of Chicago, and be made payable to the order of the Clerk of the Sanitary District of Chicago. Said amount of $1,000 will be held by the Sanitary District until all of said bids have been canvassed and the contract awarded and signed, the return of said check or cash being conditioned upon any bidder to whom the award of said work may be made appearing within ten (10) days after notice of such award being given, with bondsmen, and executing a contract with the Sanitary District for the work so awarded, and giving a bond satisfactory to the said Board of Trustees for the fulfilment of the same in the amount of $5,000.

All bids must be made upon the blank forms furnished by the Sanitary District.

No bids will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his experience and ability in this class of work, and that he can control sufficient capital to enable him successfully to prosecute same in case the contract therefor shall be awarded him.

Bidders are required to state in their bids their individual names and places of residence in full.

Specifications and plans may be obtained at the office of the chief engineer, Room 1010 Security Building, Chicago, Ill., on or after Aug 9, 1897.

The said Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,
By THOMAS KELLY, President.
Attest: JAMES REDDICK, Clerk.
Chicago, July 7, 1897. 29-4t

**COMPLETING COVERED SAND FILTER.**

SOMERSWORTH WATER-WORKS, SOMERSWORTH, N. H.

**Extension of Time for Receiving Proposals.**

Sealed proposals will be received by the Committee on Water Supply of the City of Somersworth, N. H., for one week longer than previously advertised, to wit: until noon, August 5, 1897, for completing the construction of a covered sand filter having an area of about half an acre. The work consists in completing the unfinished portion of a certain contract made by said city with Messrs. Ames & O'Shea, dated Sept. 30, 1896, of which about one-third only in value has been performed. The balance of the work remaining to be done comprises the completion of the excavation and of granite walls and piers; brick walls and all covering arches; concrete foundation and arch backing; laying and setting connecting pipes and fittings; backfilling, grading and soiling; and furnishing, assorting, cleaning and depositing the strata of gravel and sand forming the filter bed.

All bids to be made upon forms to be provided therefor by the Engineer, and to be endorsed "Proposals for Completing Sand Filter." The Committee reserves the right to reject any or all proposals, also to accept any proposal deemed to be for the best interest of the city.

Plans and specifications may be seen and forms for proposals may be obtained at the office of the Engineer, WILLIAM WHEELER, 80 State St., Boston, Mass., and at the office of

CHRIS. H. WELLS,
Chairman of Committee on Water Supply.
Somersworth, N. H. 30-1t

PROPOSALS FOR DISAPPEARING GUN CARRIAGES. Ordnance Office, War Department, Washington, D.C., July 13, 1897.—Sealed proposals, in duplicate, will be received here until 3 o'clock p. m., Aug. 13, 1897, when they will be publicly opened, for supplying the Ordnance Department, U. S. Army, with 5, more or less, 12-inch Disappearing Gun Carriages, L. F., Model 1896. Bids will be received for all or for part of the foregoing. Information furnished upon application to Brig.-Gen. D.W. FLAGLER, Chief of Ord. 29-4t

**SANITARY DISTRICT OF CHICAGO.**

TO CONTRACTORS.

Sealed bids, addressed to the Board of Trustees of the Sanitary District of Chicago, will be received by the Clerk of the Sanitary District at Room 1110 Security Building, Chicago, Ill., up to 12 m. (standard time) of Wednesday, Aug. 25, 1897, and will be publicly opened by the said Board of Trustees at the regular meeting, held that day, or at a special meeting called for that purpose.

The work for which said tenders are invited is:

First. The excavation of a channel designated as "The Tail Race," and the building of the embankments, masonry core, highway approaches, and all collateral work necessary or incident to the said Tail Race, as described and specified in the detailed specifications furnished by the engineer.

Second. The construction of a "Weir Dam" of masonry and the work collateral thereto, as described in the detailed specifications furnished by the engineer.

The work called for under these two heads may be covered in one bid, or the bidder may bid upon one division of the work only and the Board of Trustees may award all of the work to one bidder or may award the Tail Race to one bidder and the Weir Dam to another; reserving the right, however, to reject any and all bids.

Each bid shall be accompanied by a certified check or cash to the amount of $3,000 for each division of the work covered by the bid ($6,000 for the entire work).

All certified checks must be drawn on some responsible bank doing business in the city of Chicago, and be made payable to the order of the Clerk of the Sanitary District of Chicago. Said amount of $3,000 for each division of the work will be held by the Sanitary District until all of said bids have been canvassed and the contract awarded and signed, the return of said check or cash being conditioned upon any bidder to whom the award of said work may be made appearing within ten days after notice of such award being given, with bondsmen, and executing a contract with the Sanitary District for the work so awarded, and giving a bond satisfactory to the said Board of Trustees for the fulfillment of the same in the amount of $60,000 for the Tail Race, and $15,000 for the Weir Dam.

All bids must be made upon blank forms furnished by the Sanitary District, and must give the price for each separate class of work or material called for by the specifications.

The bids will be compared on the basis of the prices bid per cubic yard applied to the engineer's approximate estimate of quantities added to the lump sum price for any portion of the work upon which a lump sum may be asked.

No bid will be considered unless the party making it shall furnish evidence satisfactory to the Board of Trustees of his experience and ability in this class of work, and that he can control sufficient capital to enable him successfully to prosecute same in case the contract therefor shall be awarded to him.

Bidders are required to state in their bids their individual names and places of residence in full.

Specifications and plans may be seen at the office of the Chief Engineer, Room 1010 Security Building, Chicago, Ill.

The said Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,
THOMAS KELLY, President.
Attest: JAMES REDDICK, Clerk.
Chicago, Ill., June 9, 1897. 29-4t

PROPOSALS FOR FURNISHING HYDRAULIC CEMENT.—U. S. Engineer's Office, Mobile, Ala., July 7, 1897.—Sealed proposals for furnishing hydraulic cement at McGraw's Shoals Landing, Tombigbee River, Ala., will be received here until 12 m., August 5, 1897, and then publicly opened. Information furnished on application. WM. T. ROSSELL, Major Engrs. 27-4t

U. S. ENGINEER OFFICE, 166 Granby St., Norfolk, Va., June 17, 1897.—Sealed proposals for furnishing and delivering CEMENT, BROKEN STONE and YELLOW PINE LUMBER at Fort Monroe, Va., will be received here until 12 o'clock, July 30, 1897, and then publicly opened. Information furnished on application. THOS. L. CASEY, Capt. Engrs. 26-4t

U. S. ENGINEER OFFICE, Duluth, Minn., July 10, 1897.—Sealed proposals for building TWO BREAKWATER PIERS, each some 2,700 feet long, at Lake Superior Entrance to Portage Lake Ship Canals, Mich., will be received here until noon, Sept. 10, 1897, and then publicly opened. Information furnished on application. CLINTON B. SEARS, Major, Engrs. 28-8t

U. S. ENGINEER OFFICE, Boston, Mass., July 8, 1897.—Sealed proposals for CEMENT, SAND, AND STONE, for Battery at Long Island Head, Mass., will be received here until noon of Aug. 9, 1897, and then publicly opened. Information furnished on application. S. M. MANSFIELD, Lieut-Colonel Engrs. 29-3t

OFFICE OF LIGHT-HOUSE ENGINEER, Staten Island, N.Y., June 23, 1897.—Proposals will be received at this office until 12 o'clock m., Saturday the 7th day of August, 1897, for furnishing Miscellaneous Articles until June 30, 1898, as follows: Lot 1, ENGINEERS' SUPPLIES; Lot 2, VALVES; Lot 3, HARDWARE; Lot 4, IRON; Lot 5, LUMBER; Lot 6, GALVANIZED AND RUSSIA SHEET IRON, TIN, SOLDER, SHEET ZINC, AND IRON WIRE; Lot 7, SHEET BRASS AND COPPER; Lot 8, BRASS GUN METAL AND NICKEL CASTINGS; Lot 9, IRON CASTINGS; Lot 10, LAMP CHIMNEYS; Lot 11, WICKS; Lot 12, PROVISIONS; Lot 13, PRESSED GLASS LENSES; Lot 14; LINEN. Bids will be received for one or more numbered lots complete. Specifications, form of bid, and full information may be obtained on application to this office. The right is reserved to reject any or all bids, and to waive any defects. Bidders are invited to be present at the opening of proposals. D. P. HEAP, Lieut.-Colonel of Engineers, U. S. A., Lighthouse Engineer. 29-2t

**Other Proposals, Pages XXIV & XXVI**

WATER PIPE.—Salt Lake City, Utah.—Geo. N. Dow, Warden State Prison, informs us that the following bids were received July 14 for furnishing 9,380 ft. of 4, 5 and 6-in. cast-iron water pipe:

| | A ton. |
|---|---|
| *Colorado Fuel & Iron Co., by W. A. Wetmore, Western agent, Salt Lake City | $30.00 |
| P. J. Moran, 238 State St., Salt Lake City | 30.25 |
| T. B. Rhodes & Co., Salt Lake City | 30.40 |
| Zion Co-operative Merc. Inst., Salt Lake City | 31.80 |
| Dennis Long & Co, Louisville, Ky | 36.00 |

*Awarded contract.

BRICK PAVING.—Fond du Lac, Wis.—Wm. Powrie, Cy. Engr., of Waukesha, Wis., informs us that the following bids were received July 19 for brick paving on concrete foundations; work includes 1,184 cu. yds. earth excavation and 3,672 sq. yds. old cedar block pavement, to be moved a distance of 2,000 ft. (price for same included in price per sq. yd. of brick); contract was awarded L. Schoenlaub, of Fond du Lac, for 4-in. curb and Galesburg Paving Co.'s brick:

Bids Received July 19 for Brick Paving in Fond du Lac, Wis.

| Quantities. | | A. Dieman, Waukesha, Wis. | Cape & Sons, Racine, Wis. | L. Schoenlaub, Fond du Lac. | Matt. Dries, Fond du Lac. | M. Roberts, Fond du Lac. |
|---|---|---|---|---|---|---|
| Purington Paving Co.'s brick | 4,700 sq. yds. | $1.70 | $1.60½ | ..... | ..... | ..... |
| Galesburg Paving Co.'s brick | 4,700 " " | 1.63½ | 1.54½ | $1.27½ | $1.80½ | $1.67½ |
| " Vitrified Co.'s brick | 4,700 " " | 1.66 | 1.64½ | ..... | ..... | ..... |
| 4-in. limestone curbing | 2,170 lin. ft. | .29½ | .40 | .35 | .35 | .30 |
| 3-in. " " | 2,710 " " | .25½ | .33 | .28 | .27 | .25 |
| Protection curbing | 174 " " | .15 | .25 | .14 | .16 | .14 |
| Resetting curb, per lin. ft. | | .09 | .10 | .08 | .07 | .06 |
| Extra grading, per cu. yd. | | .30 | .50 | .14 | .14 | .08 |
| Total | | $8,510 | $8,199 | $6,965 | $9,884 | $8,619 |

PAVING BRICK.—Indianapolis, Ind.—The board of public works has awarded the contract for furnishing 400,000 paving brick to the Clinton Paving & Building Brick Co., at $9.50 a thousand. The Roseville Brick & Terra Cotta Co. was the only other bidder, at $10 a thousand.

SEWERS.—Reading, Pa.—The following bids were received July 5 for constructing a storm sewer at 6th and Cherry Sts.:

| Items. | Hawman Bros. | P. F. Hawman. | J.G. Yarnell. | S.W. Fresco. | H.E. Ahrens |
|---|---|---|---|---|---|
| Brick sewer: | | | | | |
| 3-ft. circular, lin. ft. | $3.25 | $4.18 | $3.27 | $4.35 | $3.98 |
| All manholes, vert. ft. | 4.75 | 6.50 | 3.98 | 4.50 | 4.00 |
| Pipe sewer: | | | | | |
| 15-in., per lin ft. | .90 | .88 | .89½ | .72 | .72 |
| All manholes, vert. ft. | 4.75 | 5.40 | 4.25 | 4.50 | 3.75 |
| All 5-in. house conns. | .48 | 1.00 | .40 | .35 | .20 |
| Total | $1,658 | $2,018 | $1,633 | $1,607 | $1,666 |

BRICK SEWERS.—Davenport, Ia.—The following bids were received by the board of public works July 7 for constructing sewers:

| Bidder. | Sewer. 4-ft. brick, 1,505 ft. | 3-ft. brick, 757 ft. | Pipe. |
|---|---|---|---|
| Barry & Walsh | $4.07 | $3.25 | $1.05 |
| Flick & Johnson | 2.70 | 1.93 | .75 |
| Patrick Connelly | 4.57 | 3.26 | 1.05 |
| Edwards & Walsh | 2.29 | 1.63 | .81 |
| C. Rohwedder | 3.00 | 2.40 | .85 |
| Daniel Keleher | 1.99 | 1.87½ | .87½ |

ELECTRIC PUMPING STATIONS, ETC.—New Orleans, La.—We are informed that the following bids were received by the drainage commission July 8 for work on Contract A, which includes the central electric power station, the St. Louis, the Metairie, and the Orleans pumping stations, as advertised in Engineering News:

Bids Received at New Orleans, La., July 8 for Electric Pumping Stations, Etc.

| Approximate quantities furnished to bidders. | | Ed. B. Ives, Philadelphia, Pa. Quantities. | Amount. | N. Y. Dredging Co., New York, N.Y. Quantities. | Amount. | National Contracting Co., New York. Quantities | Amount. |
|---|---|---|---|---|---|---|---|
| Excavation, delivered on bank; meas. in pit | 31,000 cu. yds | 38,000 | $0.48 | 42,000 | $0.75 | 30,900 | $0.20 |
| Filling measured in work | 4,000 " " | 2,400 | .36 | 2,400 | .30 | 1,800 | .50 |
| Haul, spoil bank per 1,000 ft. net cu. yd. | 10,000 " " | 10,000 | .60 | 10,000 | .20 | 10,000 | .30 |
| Central electric power station, above floor | | ..... | 182,600 | ..... | 60,000 | ..... | 34,950 |
| Contents, partial installation | | ..... | 309,345 | ..... | 174,000 | ..... | 201,000 |
| To Stations 2, 6 and 7; poles, complete; wire, in part | | ..... | 36,099 | ..... | 30,613 | ..... | 31,400 |
| Pumping Station No. 2, electric install. complete abv. floor | | ..... | 115,757 | ..... | 92,500 | ..... | 55,500 |
| " No. 6, " " " | | ..... | 134,779 | ..... | 103,500 | ..... | 120,500 |
| " No. 7, " " " | | ..... | 134,779 | ..... | 103,500 | ..... | 119,800 |
| Brick: | | | | | | | |
| Laid in mortar—1 Am. nat. cem, 2 sand | 6,600 cu. yds | 1,680 | 8.10 | 2,900 | 12.00 | 1,950 | 6.75 |
| " " 1 imp. Prtld cem, 3 sand | Alt. | 1,680 | 9.00 | 2,900 | 12.50 | 1,950 | 7.20 |
| " " 1 imp. Prtld cem, 2 sand | 100 " " | 170 | 10.80 | 170 | 14.00 | 170 | 7.50 |
| Concrete with mortar—1 Am. nat, 2 sand | 4,600 " " | 5,000 | 6.20 | 4,275 | 8.50 | 5,200 | 4.40 |
| " " " 1 imp.P.cem,3 sand | Alt. | 5,000 | 10.20 | 4,275 | 9.00 | 5,000 | 5.10 |
| " " " 1 imp.P.cem,2 sand | 100 " " | 100 | 11.10 | 100 | 10.00 | 100 | 6.00 |
| Quarry-faced stone | 100 cu. ft. | 100 | 1.20 | 100 | .60 | 100 | 2.25 |
| Coping stone | 100 " " | 100 | 1.62 | 100 | 1.50 | 100 | 3.85 |
| Dressing stone | 100 sq. ft. | 100 | .48 | 100 | 1.50 | 100 | 1.00 |
| Concrete pavemt, bot. canals & bldg floors | 4,900 sq. yds. | 12,800 | 1.50 | 8,500 | 2.00 | 6,800 | 1.15 |
| Cement pavement on sidewalks | 300 " " | 310 | 1.80 | 300 | 1.25 | 310 | 1.45 |
| Rolled steel, various sections & bucki pits | 60 tons | 60 | 60.00 | 60 | 60.00 | 60 | 55.00 |
| Wrought iron forgings, rods, bolts, etc. | 1 " | 1 | 120.00 | 1 | 60.00 | 1 | 95.00 |
| Cast iron | 2 " " | 2 | 60.00 | 2 | 60.00 | 2 | 75.00 |
| Yellow pine timber, driven as sheet piling | 46,000 ft. B.M. | 31,000 | 24.00 | 50,000 | 27.00 | 24,000 | 30.00 |
| " " " in foundations | 484,000 " " | 900,000 | 20.00 | 842,000 | 27.00 | 640,000 | 22.00 |
| " " piling driven in foundations | 190,000 lin. ft. | 239,000 | .18 | 223,000 | .25 | 174,200 | .17 |
| Dead oil of coal tar, injected | 40,000 lbs. | 39,000 | .025* | 62,500 | .04 | 30,000 | .02 |
| 36-in. vitrified clay pipe | 100 lin. ft. | 100 | 4.20 | 100 | 3.00 | 100 | 2.75 |
| 30-in. " " " | 100 " " | 100 | 2.94 | 100 | 2.25 | 100 | 1.60 |
| 24-in. " " " | 100 " " | 100 | 1.26 | 100 | 1.50 | 100 | 1.00 |
| 18-in. " " " | 100 " " | 100 | .69 | 100 | 1.00 | 100 | .90 |
| 15-in. " " " | 100 " " | 100 | .48 | 100 | .75 | 100 | .80 |
| New asphalt pavement laid | 400 sq. yds. | 400 | 3.30 | 400 | 4.00 | 400 | 3.07 |
| Behind retaining walls: | | | | | | | |
| Broken stone or clean gravel | 600 cu. yds. | 390 | 3.60 | 350 | 1.50 | 340 | 1.80 |
| Oyster shells | Alt. | 390 | 2.40 | 350 | 1.00 | 340 | 1.00 |
| Lumber for sheeting, bracing, etc. | 100,000 ft. B.M. | 172,000 | 18.00 | 235,000 | 27.00 | 160,000 | 26.00 |
| Total | | | $1,146,697 | | $861,095 | | $716,291 |

* Error in bid, price estimated. Note.—The computed cost of the buildings and machinery of the central and several pumping stations, is as follows: E. B. Ives, $913,359; New York Dredging Co., $564,113; National Contracting Co., $563,150. The cost of the foundations and basins has been computed on the basis of the specifications of the commission, modified as far as was indicated to be necessary, by the details and dimensions submitted with the several plans, applying the prices contained for the units of materials in the several bids.

CEMENT, SAND AND STONE.—Philadelphia, Pa.—We are informed that Maj. C. W. Raymond, U. S. Engr., Philadelphia, awarded the following contracts July 12 for furnishing construction materials, as advertised in Engineering News: Lawrenceville Cement Co., 26 Cortlandt St., New York, furnishing 25,000 barrels of American Rosendale cement, 71 cts. a bbl.; Delaware Construction Co., Wilmington, Del., small broken stone, 15,000 cu. yds., $1.23 a bbl.; Chas. Warner & Co., Wilmington, Del., sand, 7,500 cu. yds., 28 cts. a cu. yd.; Alpha Portland Cement Co., Whitaker, N. J., American Portland Cement Co., 1,700 barrels, $1.74 a bbl., and Asa B. Cook, Petersburg, Va., cut stone, 16 sets, $5.32 a set.

SEWERS.—Elizabeth, N. J.—N. K. Thompson, St. Comr., received the following lowest bids from Matthew Wade July 15 for constructing sewers: 7th St.: 530 ft. 18-in. sewer, 70 cts.; 280 ft. 5-in. sewer, 60 cts.; 6 manholes, $19.00; 4 basins, $45.00; and 80 12-in. culverts, 20 cts. Total, $869. Wall St.: 800 ft. 12-in. pipe, 52 cts. a ft.; 64 6-in. connections, 60 cts.; 8 manholes, $19.00; and 1 basin, $45.00; rock excavation, if found, $1.25 a cu. yd. Total, $671.

WATER-WORKS.—Chester, S. C.—Pownall & Minshall, Engrs., New York, inform us that Jas. McLarnon, Secy. Comrs., opened the following bids July 2 for constructing water-works, as advertised in Engineering News; R. D. Cole, Newnan, Ga., bid for stand-pipe $5,835, boilers $1,605; Meehan Boiler Co., stand-pipe, $6,549; J. R. Simnill, Chester, pumping station, $2,264:

Bids Received at Chester, S. C., July 2 for Constructing Water-Works.

| Quantities. | | Guild & White, Chattanooga, Tenn.(acptd.) | H. Neeley, Chattanooga, Tenn. | Rosser & Cosloe, Bellaire, O. | C. M. Burkhalter & Co. | Penniman & Kelly, Asheville, N. C. | T. J. Rosser, Jr., Charlottesville, Va. | Mich. Brass & Iron Co., Detroit, Mich. | R. D. Wood & Co., Philadelphia, Pa. | R. L. Varner, Anniston, Ala. | Chapman Valve Mfg. Co., Boston, Mass. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8-in. pipe | 85 tons | $17.20 | $16.75 | $17.50 | $19.00 | $17.20 | $17.25 | ..... | ..... | $16.69 | ..... |
| 6-in. " | 304 " | 17.20 | 17.00 | 17.50 | 19.00 | 17.20 | 17.50 | ..... | ..... | 16.69 | ..... |
| 4-in. " | 155.2" | 17.20 | 17.25 | 18.00 | 19.00 | 17.20 | 18.00 | ..... | ..... | 16.69 | ..... |
| 8-in. " laying | 3,780 ft. | .14 | .13 | .14 | .10 | .115 | .17 | ..... | ..... | .105 | ..... |
| 6-in. " " | 18,470 " | .12 | .11 | .12 | .09 | .09 | .15 | ..... | ..... | .095 | ..... |
| 4-in. " " | 14,107 " | .10 | .10 | .10 | .08 | .075 | .13 | ..... | ..... | .085 | ..... |
| Special castings | 8 " | 40.00 | 30.00 | 40.00 | 40.00 | 38.00 | 36.00 | ..... | ..... | 40.00 | ..... |
| Rock excavation | 600 cu. yds. | ... | .75 | 1.75 | 1.25 | 1.20 | 2.00 | ..... | ..... | 2.00 | ..... |
| 8-in. gate valves furnished | 3 | 14.04 | 16.00 | 16.00 | 16.00 | 14.04 | 16.50 | $14.04 | $16.00 | 14.04 | $15.70 |
| 6-in. " " " | 15 | 9.72 | 10.50 | 10.50 | 10.50 | 10.00 | 11.00 | 9.72 | 10.50 | 9.72 | 9.99 |
| 4-in. " " " | 17 | 5.85 | 6.50 | 6.50 | 6.50 | 6.00 | 7.00 | 5.85 | 6.50 | 5.85 | 6.53 |
| Street valve boxes | 35 | 2.25 | 2.00 | 2.25 | 2.25 | 2.20 | 2.25 | 2.25 | 2.25 | 2.25 | ..... |
| Double nozzle hydrants | 53 | 18.00 | 19.00 | 18.80 | 18.90 | 18.50 | 18.00 | 18.00 | 18.90 | 18.00 | 19.00 |
| Stand-pipe, complete | | 5,548 | 5,800 | 5,798 | 6,500 | 5,625 | 6,100 | ..... | ..... | ..... | ..... |
| Pumping engines, compressors, etc. | | 2,250 | 3,570 | 2,588 | 3,381 | ..... | 2,700 | ..... | ..... | ..... | ..... |
| 90-HP. boilers complete | 2 | 1,650 | 1,600 | 1,680 | 1,500 | 1,650 | 1,700 | ..... | ..... | ..... | ..... |
| Pumping station | | 2,250 | 2,285 | ..... | 3,150 | ..... | ..... | ..... | ..... | ..... | ..... |

STREET SPRINKLING.—Madison, Wis.—The contract for sprinkling Mifflin St. has been awarded to Peter Lahm at .0175 cts. a front ft. O. S. Norsman, Cy. Clk.

ASPHALT PAVING.—Brooklyn, N. Y.—Theo. B. Willis, Comr. Cy. Wks., received the following bids July 13 for repaving Putnam Ave., from Throop Ave. to Sumner Ave., with asphalt over concrete: Eastern Bermudez Asphalt Paving Co., asphalt pavement complete, sq. yd., $1.29; new curb, lin. ft., 75 cts.; old curb, lin. ft., 35 cts.; concrete, cu. yd., $4.20; reflagging, sq. ft., 5 cts.; Cranford & Co., for asphalt pavement, complete, sq. yd., $1.19; new curb, lin. ft., 75 cts.; old curb, lin. ft., 35 cts.; concrete, cu. yd., $4.20; reflagging, sq. ft., 5 cts.

(Contract Prices Continued on page 47.)

## INDUSTRIAL NOTES.

NEW YORK & BERMUDEZ CO., New York, N. Y., has removed its offices from 25 Beaver St. to 11 Broadway.

THE BUCYRUS CO., South Milwaukee, Wis., has orders on hand for 16 steam shovels, and is working night and day.

JONES & LAUGHLIN'S CO., Pittsburg, Pa., is reported running full force. It is expected that double time will soon be necessary.

J. G. BRILL & CO., Philadelphia, Pa., are reported running full time. Most of the present business is equipping old roads with new outfits.

THE McKENNA STEEL WORKING CO., Joliet, Ill., started up its mills on July 14. This company renews old rails by the McKenna process.

THE WAGNER PALACE CAR CO., Buffalo, N. Y., is now employing about 850 men at its works. About 1,200 are employed during the most busy times.

THE SIOUX PAVING BRICK CO, North Riverside, Ia., is reported as manufacturing about 50,000 bricks a day, and the Sioux City Pipe Co., of North Riverside, 40,000.

THE SCOTTDALE IRON & STEEL CO., Scottdale, Pa., is making improvements about its plant. The company is installing machinery for the manufacture of steel hatching.

THE WESTERN WHEELED SCRAPER CO., Aurora, Ill., reports that the demand for the line of contractors' machinery which it manufactures is increasing rapidly.

Mr. C. H. Smith, Pres. and Gen. Mgr., advises our representative that he has recently put a new contractors' dump car upon the market, which is claimed to give excellent satisfaction.

THE ISLIP DREDGING CO., Islip, N. Y., is the name of the firm which is operating the dredging machinery formerly owned by Capt. Frank S. Whitman. Messrs. Joseph Leek and John B. Field form the company.

THE GLOBE STONE CO., Cleveland, O., has had Mr. E. Wilmot appointed receiver for the company. The failure is said to have been caused by inability to meet interest on bonds sold to raise money to do business with.

THE AETNA FOUNDRY & MACHINE CO., Warren, O., recently shipped an improved pickling machine; two 36-in. squaring and two 36-in. doubling shears, one tinning machine and several others to Ohio tin manufacturers.

THE OHIO STEEL CO., Youngstown, O., held its annual meeting recently and elected these officers: Pres., Henry Wick; Vice-Pres., J. G. Butler, Jr.; Secy, and Treas., W. H. Baldwin. Orders sufficient to keep the plant in operation for several months were reported.

THE DETROIT GRAPHITE MFG. CO., Detroit, Mich., through its Chicago agents, Church & Getchell, have been awarded the contract for furnishing all the paint necessary for painting the Rock Island-Davenport bridge over the Mississippi River with two coats of superior graphite paint. The same brand of paint has been specified for use on the new court house at Fort Wayne, Ind.

THE NATIONAL SWITCH AND SIGNAL CO., Easton, Pa., has closed a contract through Mr. H. A. Parker, Asst. to Pres., Chicago, Rock Island & Pacific Ry., for a large interlocking plant at Fairfield, Ia., crossing of the Chicago, Rock Island & Pacific Ry. and the Chicago, Burlington & Quincy R. R. This plant will consist of 27 working levers and 5 spare spaces, with pipe connections to home signals.

HENION & HUBBELL, Chicago, Ill., report that they are busy in their hydraulic engineering department, and that among other contracts on hand are the following: A 500,000-gallon triplex pump for the Remington, Ill., water-works and a 20-HP. Lambert engine, direct connected, for which the Challenge Wind Mill & Feed Mill Co., Batavia, Ill., are contractors; also a 250,000 triplex direct connected pump for the new water-works at Benson, Minn., for which Porritt & Kennedy, Fargo, N. Dak., are contractors; a deep well pump for the Plymouth, Ill., water-works, the E. Best Plumbing & Heating Co. being the contractors; one continuous flow deep well pump of 8,000 gallons per hour capacity, with a 450-ft. lift, for Ames, Ia.

CAHALL SALES DEPARTMENT, Pittsburg, Pa., has received an order from the Carnegie Steel Co., Ltd., Pittsburg, for 6,500 HP. of Cahall vertical boilers for blast furnaces D and E at the Edgar-Thomson Steel Works.

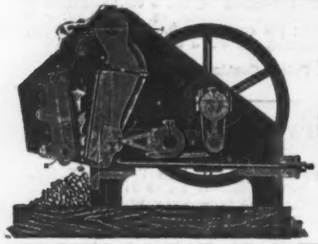
## COLUMBIA CONSTRUCTION CO.,

Importers and Refiners of **TRINIDAD ASPHALT** FOR STREET PAVING

Main Office, 35 HERALD BLDG., SYRACUSE, N.Y.

New York Office, 1210 LORD'S COURT BLDG., 27 WILLIAM ST.

Refinery at Jones' Point.



## WESTERN ROCK CRUSHER.

CHEAP. Simplest in Construction. BEST.

We also Manufacture:

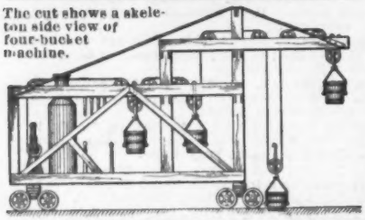
Wheeled Scrapers, Drag Scrapers, Plows, Dump Cars, Dump Wagons, Road Graders, Wheelbarrows, Elevating Grader, Pitcher and Wagon Loader, and kinds of Contractors' Supplies.

Send for our 56-page Catalogue. Valuable for reference.

**Western Wheeled Scraper Co.**

AURORA ILL.

The cut shows a skeleton side view of four-bucket machine.



## THE JACKSON HOISTER AND CONVEYOR

**For Excavating and Refilling all kinds of Trenches.** We build three sizes, to carry 2, 3 or 4 buckets, holding 10, 18, or 27 cu ft. each as desired. Car is self-propelled. Each bucket is independent of the other. Trucks under car are swiveled and will follow any curve and turn corners. **It requires only one man to run it.** Ask us more about it. Address **GEO. D. GRANNIS, Grand Opera House, Syracuse, N. Y.**

## SANITARY CONSTRUCTION CO.,

**56-58 PINE STREET, NEW YORK,**

**HOUSEHOLD GARBAGE CARBONIZER,** for the Disposal of Domestic Waste.

**PORTABLE GARBAGE FURNACES,** for Hotels, etc.

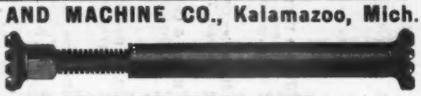
**STEAM DISINFECTING APPARATUS,** for Public Institutions and Cities.

**FORMALDEHYDE GAS REGENERATORS,** for House Disinfection.

*SEND FOR CATALOGUE.* **GARBAGE CREMATORS** for Cities.

## KALAMAZOO FOUNDRY AND MACHINE CO., Kalamazoo, Mich.

The simplest, strongest, most durable and cheapest Sewer Brace on the market.



**THE ONLY BRACE MADE WITH STEEL SCREW.**

## EXTENSIBLE TRENCH BRACE.

The only trench brace that will, and has stood the tests. Beware of cheap and worthless imitations.

Write for Prices and Circulars of our Patent Combined Iron and Timber Brace for large excavations.

**THE DUNN MFG. CO., Limited.** Pittsburg, Pa.

NONPAREIL

## Cork Pipe Covering.

HIGHEST EFFICIENCY.

Not affected by any steam-heated surface, water, dampness, frost, concussion nor vibration.

HOLDS ITS FORM. VERY TOUGH

**POWER SPECIALTY CO.** 126 Liberty St., N. Y.

## FLEXIBLE JOINTS

FOR WATER PIPES, FOR GAS, OIL, COMPRESSED AIR, ETC.

Strongest, Cheapest, Easiest to Use. Contracts taken for Submerged Pipe Laying. Correspondence Solicited.

A. L. HOLMES, Grand Rapids, Mich

## "BLASTING CAPS."

Troisdorf Detonators

FR. SCHROEDER Sole Agent for the U. S. A., 66 Maiden Lane New York.

RHENISH WESTPHALIAN EXPLOSIVES COMPANY, Limd. COLOGNE


For Other Proposals see Page XXVI.

## SEWERS.

CORRY, PA.

Sealed proposals will be received by the City of Corry until 8 p. m., Monday, Aug. 9, 1897, for the furnishing of the material and the construction of the Congress Street System of Sewers (about 2 miles of 10, 12, 15, 18, 22 and 24-inch pipe sewer), together with manholes, catchbasins, etc.

ALSO

For the furnishing of the material and the construction of the Smith Street sewer (about 775 feet of 18-inch pipe sewer), together with manholes, catchbasins, etc.

ALSO

For the furnishing of the material and the construction of the Franklin and Mott Street sewer (about 1,200 feet of 10, 12 and 15-inch pipe sewer), together with manholes, catchbasins, etc.

ALSO

For the furnishing of the material and the construction of the Spring and Church Street sewer (about 1,397 feet of 10, 12 and 15-inch pipe sewer), together with manholes, catchbasins, etc.

ALSO

For the furnishing of the material and the construction of the West Church Street, Euclid Street and 2d Avenue sewer (about 2,718 feet of 12, 15, 22 and 24-inch pipe sewer), together with manholes, catchbasins, etc.

Bids must be in duplicate, one addressed to City Clerk, and the other to City Controller. The bids addressed to City Clerk must contain cash or certified check, payable to the City Treasurer, as a guarantee that in case the contract is awarded, the successful bidder will, within 5 days after notice in writing from the City Engineer, execute said contract. The amounts of cash or checks are as follows:

| | |
|---|---|
| Congress Street System | $500.00 |
| Smith Street Sewer | 100.00 |
| Franklin and Mott Street Sewer | 100.00 |
| Spring and Church Street Sewer | 100.00 |
| W. Church, Euclid and 2d Ave. Sewer | 200.00 |

Bonds to an amount not exceeding one-third of the contract price with securities satisfactory to the City Solicitor, will be required of those to whom contracts are awarded.

The Councils reserve the right to reject any or all bids, also to waive defects in form. Plans and specifications may be seen at the office of the City Engineer, and bidding sheets may be there obtained.

Corry, Pa., July 20, 1897.

GEO. D. GILBERT, City Engineer.

29-2t

## IMPROVING CANAL.

NEW YORK STATE CANALS.—NOTICE to Contractors.—Office of the Superintendent of Public Works, Albany, N. Y., Wednesday, July 21, 1897.

Pursuant to chapter 79, laws of 1895, chapter 794, laws of 1896, and chapters 43 and 569, laws of 1897, sealed proposals will be received by the Superintendent of Public Works, at his office in Albany, N. Y., until Friday, Aug. 6, 1897, at 12 o'clock noon of that day, for the following pieces of work. The work will be bid for and let separately, and every proposal for each piece of work hereinafter designated must be accompanied by a draft on some good banking institution of the city of New York or Albany, issued by a national or state bank in good credit within the state, payable at sight to the Superintendent of Public Works. The amount of deposit will be 5 per cent. of the proposal, and will be retained as a part of the security until the completion of the work; the amount of labor bond required on execution of contract will be 40 per cent. of the proposal, and the amount of bond for the faithful performance of contract on execution of contract will be 45 per cent. of the proposal:

CONTRACT No. 20.—MIDDLE DIVISION.—For improving the Middle Division of the Erie Canal, from a point 100 feet west of Greenfield's Road Bridge, to a point 100 feet west of Main Street Road Bridge at New London, a distance of 8.45 miles.

CONTRACT No. 21.—MIDDLE DIVISION.—For improving the Middle Division of the Erie Canal, from a point 100 feet west of Main Street Road Bridge at New London, to a point 100 feet west of Durhamville Road Bridge No. 63, a distance of 8.31 miles.

CONTRACT No. 22.—MIDDLE DIVISION.—For improving the Middle Division of the Erie Canal, from a point 100 feet west of Durhamville Road Bridge No. 63, to a point 100 feet west of New Boston Road Bridge, a distance of 9.04 miles.

CONTRACT No. 24.—MIDDLE DIVISION.—For improving the Middle Division of the Erie Canal, from a point 100 feet west of Kirkville Road Bridge to a point 100 feet east of Butternut Creek Aqueduct, a distance of 5.86 miles.

CONTRACT No. 25.—MIDDLE DIVISION.—For improving the Middle Division of the Erie Canal, from a point 100 feet east of Butternut Creek Aqueduct, to a point 100 feet east of the Upper Hollow Quoin of Lock No. 49, a distance of 5.30 miles.

CONTRACT No. 26.—MIDDLE DIVISION.—For improving the Middle Division of the Erie Canal, from a point 100 feet west of the Lower Hollow Quoin of Lock No. 51, to a point 100 feet west of Centerport Road Bridge, a distance of 5.56 miles.

CONTRACT No. 27.—MIDDLE DIVISION.—For improving the Middle Division of the Erie Canal, from a point 100 feet west of Centerport Road Bridge to a point 100 feet west of Crane Brook Aqueduct, a distance of 5.63 miles.

CONTRACT No. 28.—MIDDLE DIVISION.—For improving the Middle Division of the Erie Canal, from a point 100 feet west of Crane Brook Aqueduct, to the east line of Wayne county, a distance of 6.24 miles.

CONTRACT No. 36.—MIDDLE DIVISION.—For raising the towing path of the Oneida Canal, from Lock No. 7 to Guard Lock No. 1 and work connected therewith, a distance of 3.56 miles.

Plans, specifications, notices and form of contract may be seen from the date of publication of this notice to the date fixed for the receipt of proposals, at the office of the Superintendent of Public Works in Albany, N. Y., and at the office of Thomas Wheeler, Assistant Superintendent of Public Works, in Syracuse, N. Y., and at the office of R. G. Lay, Assistant Superintendent of Public Works, in Rochester, N. Y. All proposals for the above work must be addressed to the Superintendent of Public Works at Albany, N. Y., and must be endorsed on envelope, "Proposal for Contract No. —, Middle Division." The right is reserved to reject any or all bids.

GEORGE W. ALDRIDGE, Superintendent of Public Works.

29-2t

PROPOSALS FOR CONSTRUCTION OF DAMS, SHORE PROTECTIONS AND LEVEES, AND FOR DREDGING, ON UPPER MISSISSIPPI RIVER. U. S. Engineer Office, Rock Island, Ill., July 15, 1897.—Sealed proposals, in duplicate, will be received here until 11 a. m., Aug. 14, 1897, and then publicly opened, for construction of dams and shore protections: (1) between Minnelska and Queens Bluff, Minn.; (2) between Prairie du Chien, Wis., and Dubuque, Ia.; (3) between Dubuque and Le Claire, Ia.; (4) between Rock Island and Keithsburg, Ill.; (5) between Keokuk, Ia., and Quincy, Ill.; (6) between Hamburg, Ill., and mouth of Illinois River; for dredging (7) at Dubuque, Ia.; (8) at Muscatine, Ia.; for construction of levees (9) between Flint Creek and the Iowa River, Ia. Information furnished on application to Lieut. CHARLES KELLER, Engrs. 29-3t

GOVERNOR'S ISLAND, N. Y., July 6, 1897.—Sealed proposals in triplicate will be received here until 12 o'clock noon, August 5, 1897, for construction of a double end FERRY BOAT, to be used in N. Y. Harbor. Information furnished on application. U. S. reserves right to accept bid for boat, which, according to plans and specifications submitted, is deemed most suitable; or to reject any or all proposals. Envelopes containing proposals should be marked "Proposals for Boat" and addressed QUARTERMASTER, Governor's Island, N. Y. 27-4t


## CURRY & CO., MEADVILLE, PA., Iron and Brass Foundry,

Manufacturers of

**STREET AND SEWER CASTINGS OF EVERY STYLE.**

MANHOLE AND LAMPHOLE COVERS, SEWER INLETS,

CURRY'S IMPROVED FLUSH TANK, ETC.

Send blue-prints for estimates. General Foundry Work. Write for prices, etc.

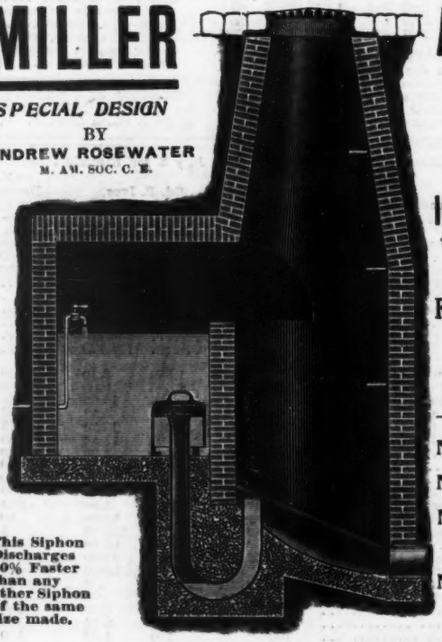
## MILLER AUTOMATIC SIPHON

*SPECIAL DESIGN* BY ANDREW ROSEWATER M. AM. SOC. C. E.

—FOR—

INTERMITTENT FLUSH TANKS.

For Flushing Street Sewers and for Sub-Soil Irrigation.



This Siphon Discharges 40% Faster than any other Siphon of the same size made.

No Moving Parts.

No Valves.

No Small Tubes to Clog or Choke.

Nothing Whatever to Get Out of Order.

*SEE NEXT WEEK FOR STANDARD DESIGN.*

Received Highest Award at World's Columbian Exposition of 1893 for

**SIMPLICITY OF CONSTRUCTION, EFFICIENCY AND RELIABILITY.**

**We guarantee every Siphon to be absolutely reliable, no matter how small the supply stream may be.**

MANUFACTURED BY

## PACIFIC FLUSH TANK CO.,

*Write for Catalogue and Prices.* **84 La Salle St., CHICAGO.**

This is the fourth order placed for this kind of boilers by the Carnegie Steel Co., aggregating a total of nearly 15,000 HP. The Cahall people are also building 4,000 HP. for the Shenango Valley Steel Co., New Castle, Pa., and 6,000 HP. for a new sugar refinery. They have in their shops now unfinished orders for upwards of 30,000 HP., including boilers for the Brooklyn Edison Co., the Union Traction Co. of Philadelphia, the Detroit & River St. Claire Electric Ry. Co., the Pittsburg Plate Glass Co., the Buhl Steel Co. of Sharon, Pa., the North Hudson Ry. Co., and the Hudson Electric Light Co., of Hoboken, N. J.

NEW COMPANIES.—The Fuller & Warren Combustion Co., Chicago, Ill., to manufacture furnaces, boilers, etc. Fred Hawkins, Andrew Burnett and Ralph S. Hawkins.

Valley Vital Carbon Brush Co., New York, N. Y.; $25,000; to manufacture commutator brushes and electrical devices; Darius A. Le Valley and John V. Clarke, White Plains, N. Y.; Edward J. Lewis, J. Ralph Hurnett and William J. Creed, New York.

Southern Tile & Artificial Stone Co., Jacksonville, Fla.; $25,000; to manufacture artificial stone and tile, to buy and sell cement, brick, natural stone, and such materials as are generally used for paving, building of houses and general contracting purposes, etc.; J. K. Münnerlyn, F. A. Baya, Jacksonville; J. F. St. John and M. E. Gillett, Tampa, Fla.; D. E. Thompson, L. F. Edwards and B. A. Cornhman, Secy., Jacksonville, Fla.

Hays Construction Co., Charlestown, W. Va.; $100,000, commencing with $3,000; to construct steam and electric railways, canals, water-works, reservoirs, foundations, etc.; F. J. Hays, I. R. Hays, O. B. Loose, E. H. Loose, T. J. Clary, Bridgewater, Va.

McCabe Manufacturing Co., Brooklyn, N. Y., $5,000; to manufacture funnels, match boxes and water tanks; Frederick T. Marquand, William H. Marquand and John P. McCabe, Brooklyn.

Mound City Construction Co., St. Louis, Mo., $15,000; Guy H. Wright, Freeman Wright and Harry S. Canfield.

Miles Cable Carrier Co., Kittery, Me.; $300,000; to convey mail and other articles in bags through tunnels or conduits attached to a continuous cable, operated by steam or electricity. Pres., Geo. Miles; Treas., Edgar Banks, Boston, Mass.

Allegheny Galvanizing Co., Allegheny, Pa.; $5,000, commencing with $5,000; to manufacture iron and steel; William A. Crawford, 134 Irwin Ave., Alleghany.

Consolidated Copalquin Mines Co., Limited, East Orange, N. J.; $1,000,000, commencing with $1,000; to construct and repair railways, water, gas and electrical works, tunnels, bridges, etc.; George W. Mark, New York, N. Y.; Alfredo B. Adams, Chicago, Ill.; Howard K. Wood, East Orange, N. J.

Dredging & Filling Co., New York, N. Y., $2,000; James Flanagan, James Leach, Levi Hussey, Robert W. Todd, and De Witt C. Flanagan, New York.

Rockland Lake Trap Rock Co., Rockland Lake, N. Y.; $10,000; quarry trap rocks; Wilson P. Foss, Jacob F. Conklin, and James C. Conklin, Haverstraw, N. Y.

Empire Machine Co., New York, N. Y.; $5,000; to manufacture various machines and their appliances; William C. Doscher, Albert L. Foss ,and Francis F. Atkinson, New York.

United States Electrical Supply Co., New York, N. Y.; $10,000; to manufacture electrical supplies and erect electrical plants; William J. Clarke, T. Channon Press, and Charles P. Sheridan, New York.

Carbon Engine Co., Wheeling, W. Va.; $120,000, commencing with $50; to deal in engines, etc.; Geo. L. Dake, Mahlon M. Chew, William Howell, Frank E. Stevens and Chas. W. Toland.

Oronoco Iron Co., New York, N. Y.; $5,000,000, commencing with $1,000; to smelt and dispose of iron and other mineral ores; Albert B. Roeder, A. L. Roeder, Frederic Prentice, Benoni Lockwood, Jr., and Jas. E. York.

Meriden Spring Hinge Co., Jersey City, N. J.; $100,000, commencing with $1,000; to manufacture spring hinges, door knobs, etc.; E. F. Leonard and W. V. Blair, Meriden, Conn.; E. G. Maturin, East Orange, N. J.

Planters' Compress Co., New York, N. Y.; $5,000,000, commencing with $100; to manufacture machines and devices for compressing cotton, wool, hemp, etc.; Chas. D. Hamill, Tiffany Blake, Victor Elting and Chas. Hamill; M. J. O'Shaughnessy, Jr., Huntersville, Ala.

Davenport & Treacy Co., Jersey City, N. J.; $25,000, commencing with $25,000; to manufacture and sell iron, brass and other metal castings; Jas. F. Fielder, William Brinckerhoff and Geo. B. Fielder, Jr.

Dredging & Filling Co., New York, N. Y.; $2,000; to manufacture mining, dredging and pumping machinery, etc., and to fill in low and marsh lands; James Flanagan, 53 West 39th St.; James Leach, Levi Hussey, Robert W. Todd and DeWitt C. Flanagan, New York.

Tony Ore Reduction Co., Pueblo, Colo.; $100,000; to build ore concentrators under a patent which has been secured by Wm. R. Bushby. Frank Pryor, Charles Henkel, A. N. Fink, John Martin and William H. Bushby.

Mount Bruno Assn., Montreal, Que.; $50,000; to purchase, lease or otherwise acquire the domain Saint Bruno; to build and maintain roadways and streets, waterworks, electric light plant, electric railway, gas-works, etc.; Edson L. Pease, Benjamin Hallowell Brown, Thomas J. Drummond, Arthur A. Browne, George E. Drummond, William M. Doull and James T. McCall, Montreal, Que.

Pullen Battery & Electrical Manufacturing Co., Camden, N. J.; $100,000, commencing with $1,000; to manufacture and sell reversible primary batteries and other electrical appliances; Leon W. Pullen and J. Madeson Pullen, Camden, N. J.; Chas. L. Klauder and Albert E. Bainbridge, Philadelphia, Pa.

Mason, Hoge & King Construction Co., Charleston, W. Va.; $50,000, commencing with $100; to do a general construction business; W. H. Bryant, Denver, Colo.; John King, Romeoville, Ill.; H. P. Mason, Frankfort, Ky.; George Davis and A. E. Humphreys, Charleston.

Duluth, Superior & Western Terminal Co., New York, N. Y.; $500,000, commencing with $500; to construct docks, wharves, elevators and warehouses and railways thereto; Cortland Betts, Morristown, N. J.; F. H. Church, Harrison, N. Y.; Cornelius A. Loughlin and Arthur Starke, New York, N. Y.; Benj. Whiteley, Elizabeth, N. J.

Mexican Clay Manufacturing Co., Cleveland, O.; incorporated in West Virginia; $600,000, commencing with $500; to manufacture and deal in sewer pipe, paving brick, etc.; W. J. Burke, Chas. F. Halsted, Geo. D. Beattys and Remsen Johnson, Brooklyn, N. Y.; Austin Norris, Jersey City, N. J.

Newark Construction Co., Newark, N. J.; $100,000, commencing with $1,500; to construct steam and electric railways, electric light plants, water-works, and all kinds of public works; Wm. H. Craig, East Orange, N. J.; James W. Lindsay, Paterson, N. J.; Edward P. Doane, Newark.

Northwest Development Co., East Orange, N. J.; $100,000, commencing with $1,000; to construct, maintain and operate railways, water, gas and electrical works, etc.; Chas. E. Pegley, Jr., 1 West 104th St., and Wentworth B. Winslow, 61 5th Ave., New York, N. Y.; Wm. Percy Mills, Flatbush, N. Y.; Howard K. Wood, East Orange.

Algodones Land & Town Co., Algodones, Mex.; $120,000; to erect manufactories, etc.; directors, R. G. Baloome and J. N. Cook, Algodones, and others.

Kern River Co., Portland, Me.; $2,500,000; to construct and maintain canals, pipes, etc., for power and irrigation; Pres., Charles F. Libby; Treas., Levi Turner, Portland.

Niles Boiler Co., Niles, O.; to manufacture boilers, heaters, oil refineries, and all kinds of plate, sheet and structural iron. Pres., R. G. Sykes; Vice-Pres., John McVey; J. H. Orwig, Gen. Mgr.; Engr., E. A. Gilbert; Supt., T. F. Pendleberry.

Keystone Crusher & Boiler Co., Pittsburg, Pa.; $15,000; George T. Robinson, Matilda A. Rea, William H. Rea, Henry Rea, Allegheny, Pa.; Clement F. Hinman, Henry H. Robinson, William C. Robinson, Stuart H. Robinson, Pittsburg, Pa.

George B. Sennett Co., Youngstown, O.; $100,000; to manufacture engines, machinery, forgings, castings, etc.; George B. Sennett, Florence Sennett, Thomas E. Davey, Thomas W. Lloyd and C. D. Hine.

Cleveland Brass Co., Cleveland, O.; $25,000; to manufacture all kinds of brass, copper, bronze and aluminum castings; John L. Caven, Albert Bray, Charles Bahr, W. H. Bosworth and W. P. Mount.

States Avenue Land Co., Atlantic City, N. J.; $50,000, commencing with $50,000; to build and maintain streets, sidewalks, wharves, etc.; James A. Catheart, William Riddle and J. Herbert Tebbetts, Jersey City.

Yukon-Klondyke Gold Mining & Trading Co., East Orange, N. J.; $125,000, commencing with $1,000; to construct and operate steamships, railways, telegraph and telephone lines, etc.; Alfred Luttman, Newark, N. J.; John E. Walker and Charles Dutton, East Orange, N. J.

## CONTRACT PRICES.

DRAINAGE CANALS.—New Orleans, La.—We are informed that the following bids were received by the drainage commission July 8 for constructing open and unlined canals (Contract D), as advertised in Engineering News: B. M. Harrod, Ch. Engr.; F. G. Freret, Secy.:

Bids Opened at New Orleans, La., July 8, for Constructing Drainage Canals.

| Quantities. | Thomas Byrne, Chicago, Ill. | Rit'nh'se Moore D.Co., Mobile, Ala. | J. S. Codifer, New Orleans. | J. A. Andrews & Sons, New Orleans. | Thomas Nevins Nevins & Son, Orange, N. J. | Dilworth, Scudder D.Co., New Orleans. | National Contracting Co., New York. |
|---|---|---|---|---|---|---|---|
| Excavation: | | | | | | | |
| Dredge and placing on levee. 80,000 cu. yds. | $0.40 | $0.40 | $0.23½ | $0.19½ | $0.15 | $0.17½ | $0.19 |
| Dredge and plcg on spoil bnk 190,000 " " | .27 | .38 | .19½ | .17 | .15 | .13 | .15 |
| Other method (on levee).... 10,000 " " | .27 | .10 | .23½ | .27½ | .30 | .25 | .29 |
| " " (haul, 150 ft.) 10,000 " " | .27 | .10 | .21 | .25 | .35 | .25 | .18 |
| Rehandling contnts existg levees 7,000 " " | .22 | .10 | .14 | .14½ | .50 | .12 | .22 |
| Delivering, (not over 3,000 ft.): | | | | | | | |
| In levee ..... 20,000 " " | .30 | .15 | .38 | .37¾ | .30 | .27½ | .24 |
| In spoil bank .....100,000 " " | .25 | .17 | .33 | .33 | .30 | .25 | .20 |
| " " " each adtl 1,000 ft 35,000 " " | .08 | .17 | .09 | .08 | .15 | .10 | .05 |
| Yellow pine lumbr, bdgs & clvrts 90,000 ft. B.M. | 22.00 | 21.50 | 24.00 | 25.00 | 15.00 | 20.00 | 32.00 |
| 2x12-in. x 20 ft., sheet piling. 360,000 " " | 45.00 | 21.00 | 24.00 | 30.37½ | 17.00 | 27.08 | 24.00 |
| Dead oil of coal tar, injected....450,000 lbs..... | .02½ | .01⅝ | .03 1-5 | .03 | .05 | .02½ | .02 |
| Total ..... | $160,670 | $148,532 | $129,830 | $124,533 | $121,720 | $101,339 | $97,010 |

ASPHALT REPAIRING.—Brooklyn, N. Y.—The following bids were received by Theo. B. Willis, Comr. Cy. Wks., July 13 for repaving Monroe St., from Lewis to Stuyvesant Ave., with asphalt pavement over concrete: Fruin-Bambrick Construction Co., for asphalt pavement complete, sq. yd., $1.35; new curb, lin. ft., 75 cts.; old curb, lin. ft., 35 cts.; concrete, cu. yd., $4.50; refagging, sq. ft., 5 cts; Eastern Bermudez Asphalt Paving Co., for asphalt pavement complete, sq. yd., $1.29; new curb, lin. ft., 75 cts.; old curb, lin. ft., 35 cts.; concrete, cu. yd., $4.20; refagging, sq. ft., 5 cts.; Cranford & Co., for asphalt pavement complete, sq. yd., $1.19; new curb, lin. ft., 75 cts.; old curb, lin. ft., 35 cts.; concrete, cu. yd., $4.20; refagging, sq. ft., 5 cts.

PAVING.—Kane, Pa.—Neil C. MacEwen, Secy. Council, writes us that the following bids were received July 12 for paving, as advertised in Engineering News:

Bids Opened July 12 at Kane, Pa., for Paving.

| Bidder. | Excavation, 2,650 cu.yds. | Paving, 6,021 sq. yds. | Curb, 2,928 ft. | Circular curb, 181 ft. | Reset, per sq.yd. | Pipe 4-in., 1,450 ft. | Pipe 12-in., 75 ft. | Total. |
|---|---|---|---|---|---|---|---|---|
| Clawson & Lavery, Warren, Pa. ..... | $0.30 | $1.65 | $0.45 | $0.60 | $0.15 | $0.10 | $0.35 | $12,182 |
| A. V. Pueneil, Allegheny, Pa..... | .26 | 1.62 | .40 | .60 | .20 | .07 | .30 | 12,087 |
| M. McMahan, Bradford, Pa. ..... | .25 | 1.60 | .44 | .75 | .10 | .10 | .17 | 11,878 |
| James McAfee & Co., Allegheny, Pa. ..... | .27 | 1.64 | .43 to .45 | .70 | .20 | .10 | .60 | 12,223 |
| James McCloud & Co., Williamsport, Pa. ..... | .23 | 1.58 | .46 | .65 | .25 | .08 | .40 | 11,753 |

LAYING WATER MAINS.—Lafayette, Ind.—Edward Cunningham, Supt. Water-Works, informs us that the following bids were received July 5 for laying 4-in., 6-in., 8-in. and 10-in water mains, respectively: Wallace Bros. Co., Lafayette, 13 cts. a lin. ft., 18 cts. a lin. ft., 20 cts. a lin. ft., 23 cts.; cutting in old mains, 4-in. joints, 50 cts. each; 6-in., 60 cts.; 8-in., 70 cts.; extra depth, 30 cts. cu. yd; O. P. Benjamin Mfg. Co., Lafayette, 16 cts., 19½ cts., 24 cts., 29 cts.; inserting and fitting in old lines, 4-in., $3.50; 6-in., $4.00; 8-in., $4.50; 10-in., $5.50. The contractor is to furnish all packing and lead, trench and refill; depth, 4½ ft.

BRICK PAVING.—Newport, Ky.—We are informed that the following bids were received July 15 for brick paving, as advertised in Engineering News:

Bids Received July 15 for Brick Paving at Newport, Ky.

| Bidder. | 5-in. curb, straight, 2,000 ft. | 5-in. curb curved, 120 ft. | Old curb reset, 100 ft. | Brick paving, 5,300 sq. yds. | 6-in. concrete, foundat'n, 5,300 sq. yds. | Repairing with limestone, 100 sq. ft. | 3-in. drain-tile, 2,000 ft. | Macadam, 50 sq. yds. | Excavation, 4,000 sq. yds. | Remodeling catchbasins, 7. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| John McLane, York St., Newport, Ky.. | $0.56 | $0.70 | $0.10 | $0.32 | $0.58 | $0.45 | $0.08 | $0.50 | $0.32 | $30.00 | $7,794 |
| Van Zant & Meeds, Cincinnati (accepted) | .54 | .90 | .10 | .37½ | .54 | .25 | .00½ | .25 | .01 | 22.00 | 6,289 |
| Jerry M. Quill, Cincinnati, O..... | .58 | .58 | .10 | .43 | .49 | .50 | .06 | .80 | .00½ | 9.00 | 6,466 |
| Jos. G. Collopy, Newport, Ky..... | .60 | .90 | .05 | .60 | .40 | .20 | .04 | 1.00 | .25 | 15.00 | 7,868 |
| Niehaus & Drach, Cincinnati. ..... | .45 | .90 | .10 | .35 | .50 | .40 | .03 | .50 | .23 | 28.00 | 6,764 |
| W. J. Flynn, Cincinnati, ..... | .70 | 1.10 | .10 | .55 | .54 | .40 | .08 | 1.00 | .20 | 35.00 | 8,614 |
| John Tropp, Dayton, Ky. ..... | .49 | .75 | .10 | .34 | .50 | .55 | .04 | .56 | .19½ | 23.50 | 6,640 |
| J. W. Sullivan, Bodman Bldg, Cincinnati | .56 | 1.00 | .10 | .40 | .50 | .25 | .05 | .50 | .20 | 15.00 | 7,475 |
| A. J. Henkle, Bodman Bldg., Cincinnati | .60 | .80 | .10 | .41 | .68 | .20 | .03 | 1.00 | .01 | 20.00 | 7,344 |
| T. C. Brown, York St., Newport, Ky... | .66 | 1.00 | .10 | .52 | .50 | .30 | .03 | .25 | .22 | 20.00 | 7,989 |

Up to July 17 the contract for furnishing the brick had not been awarded, the bids for which were as follows: Athens Brick Co., Athens, O., 57½ cts. a sq. yd.; Kentucky Brick Co., Fire Brick, Ky., 55 cts.; John Tropp (Union Paver), Dayton, Ky., 62 cts.; Scota Fire Brick Co., Portsmouth, O., 63 cts.; McMangal Brick Co., Middleport, O., 60 cts.

## BRIDGE WORK.

A certain city having a population of over 100,000 advertised in local papers for bids for constructing a small steel bridge, estimated to cost less than $5,000. The bids were rejected as too high, and the work readvertised. The second advertisement alone cost the city about $50, but the bids were not satisfactory and were rejected.

Had the city spent $10, or even $5, in an advertisement in Engineering News, this work would have been brought to the attention of every prominent bridge contractor and bridge company in North America; about $100 saved to the city in advertising, and doubtless more and lower bids received. ADVERTISE YOUR WORK IN ENGINEERING NEWS.


## ADVERTISE IN ENGINEERING NEWS

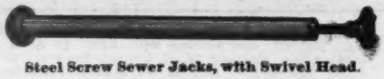
If it is a small piece of work in which you are interested you should advertise for bids in Engineering News and find at how low a cost it can be done by a reliable contractor; if you contemplate the purchase of a road roller, street sweeper, stone crushing plant, or of any supplies in which the readers of this paper are interested, you will find it to your advantage to avail yourself of their competition. All important contracts should be advertised in Engineering News, if extensive competition is desired from reliable contractors and manufacturers. The cost is very reasonable, being at the rate of $2.40 an inch a week for space occupied, and the result is invariably satisfactory.

The Circulation of Engineering News among Prominent Contractors Probably Exceeds that of Any Other Five Papers.

# Advertise Your Work in Engineering News

Sewer Inlet

Acknowledged the simplest and most practical Sewer Inlet made.

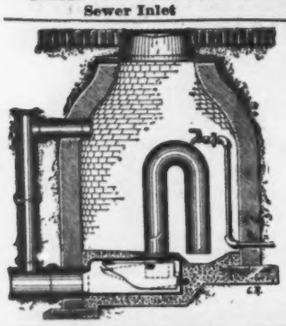


Steel Screw Sewer Jacks, with Swivel Head.

Street and Sewer Castings made any style. Send blue prints for estimates.

Manhole.

# THE SOUTH BEND FOUNDRY CO., South Bend, Ind.



# THE VAN VRANKEN AUTOMATIC SEWER FLUSH TANK

**Will discharge with the smallest feed stream of any tank in the market. Does not require excavation below the bottom of the sewer; can be used where the depth of sewer is but two and one-half feet.**

For catalogues, discounts and other particulars, address

**J. LELAND FITZGERALD,**
SCHENECTADY, NEW YORK.

CONTRACTORS' TOOLS & MACHINERY
IRONWORK AND CASTINGS OF ALL DESCRIPTIONS
PAVING TOOLS AND MACHINERY A SPECIALTY
Net Quotations on Application
W. S. GODWIN & CO. 243-245 Filbert St. Philadelphia, Pa.

**CONTRACTORS** for Street Railways, Sewers, Roadways, Telegraph Lines, Concrete Work, etc., etc., can save money by getting estimates on their **TOOLS** and Outfits from

**W. H. ANDERSON & SONS, Detroit, Mich.**

# MANHATTAN CONCRETE CO.

*...Engineers and Contractors...*

**HIGH-GRADE CONCRETE** ...Of Every Description...

**156 Fifth Avenue,** NEW YORK CITY.

**L. WILSON,**
Contractor for
**Artesian Wells**
For any depth from 100 to 3,000 feet.
Also, Oil and Gas Wells.
Correspondence invited.
L. WILSON,
53 Dearborn St., Chicago


## MACADAMIZING.

TOWN OF OYSTER BAY,
QUEENS COUNTY, N. Y., July 26, 1897.

Sealed bids or estimates will be received by the Supervisor and Highway Commissioners of the Town of Oyster Bay, Queens County, N. Y., at a meeting to be held at the Town Hall in the Village of Oyster Bay, Wednesday, August 11, at 1 o'clock p. m., for regulating, macadamizing and otherwise improving Sections 1, 2 and 3 (about six miles each) of the highway improvement contemplated by the Town of Oyster Bay.

Each bid must be accompanied by a certified check for $2,500.00, drawn to the order of Samuel J. Underhill, Supervisor.

Specifications will be furnished and plans may be seen at the office of William H. Bowne, Civil Engineer, Glen Cove, Long Island, and general information may be obtained from G. A. Roullier, C. E., Flushing, L. I.

The right to reject any or all bids is reserved, and the acceptance of any bid is subject to a sale of bonds on July 31, 1897.

SAMUEL J. UNDERHILL,
Supervisor.
FREDERICK HERZOG,
SAMUEL J. SEAMAN,
SAMUEL V. W. FLEET,
Highway Commissioners. 30-2t

## HOISTING MACHINERY FOR HEAD GATES.

BANGOR, MAINE.

Proposals for Hoisting Machinery for Head Gates for Water-Works, Bangor, Maine, will be received by the Water Board until 3 o'clock p. m., August 9th, 1897.

Same are to be made in accordance with plans and specifications of the work, which can be seen at the office of the Water Board or may be obtained of A. B. TOWER, Holyoke, Mass.

The right is reserved to reject any or all bids.

WALTER I. BROWN,
28-3t Clerk of Bangor Water Board.

## IMPROVING CAUSEWAY.

QUEENS COUNTY, N. Y.

Sealed bids or estimates for improving the Newtown & Flushing Causeway, from Flushing bridge to Hill's creek, will be received by the Board of Supervisors of Queens county, at a meeting to be held at the Court House, Long Island City, on the 6th day of August, 1897, at 12 o'clock noon, at which time and place the bids will be publicly opened and the contract awarded, if awarded, to the lowest responsible bidder, with adequate security, as soon thereafter as practicable.

The right to reject any or all of the bids is reserved by the Board of Supervisors.

The amount of deposit required with each bid is $3,000. The amount of security required with each bid is $12,000.

For specifications, details and further information, apply at the office of the County Engineer,

JOHN J. McLAUGHLIN,
30-1t Bank Building, Jamaica, N. Y.

## PIPE SEWERS.

BOARD OF COMMISSIONERS,
WEST HARTFORD, CONN., July 27, 1897.

Sealed proposals will be received at the Engineer's Office, until Wednesday, August 4th, 1897, at 12 o'clock noon, for the construction of a pipe sewer system.

The work will consist of about 12,000 lineal feet of pipe ranging from 10 to 24 inches.

Bids must be made upon blanks furnished by the engineer, accompanied by a certified check in the sum of $1,000 made payable to the Town Treasurer.

Plans and specifications are on file and can be seen at the office of the Engineer, Whiting Lane, West Hartford, Conn.

The right is reserved to reject any and all bids not deemed to be for the interest of the said town.

E. T. STANLEY,
C. E. BEACH,
W. E. GOODWIN,
Sewer Commissioners.
H. BROWN ALDERSON,
Engineer. 30-1t

U. S. ENGINEER OFFICE, Burke Building, Seattle, Wash., June 23, 1897.—Sealed proposals for constructing GUN EMPLACEMENTS on Admiralty Head, Washington, will be received here until 2 p. m., July 31, 1897, and then publicly opened. Information furnished on application. HARRY TAYLOR, Capt., Engrs. 26-4t

## ASPHALT PAVING.

PEORIA, ILL.

Sealed bids will be received by the Commissioner of Public Works of the City of Peoria, Ill., until 2 o'clock p. m., of Tuesday, August 3, 1897, for furnishing all labor and material for the construction of about 7,400 square yards of asphalt pavement and about 4,000 lineal feet of cement curb and gutter on Ravine Avenue, in said city, according to the specifications on file in the office of the Department of Public Works.

Proposals must be made out upon blanks furnished by said department and be accompanied with two thousand dollars ($2,000) in money, or certified check for the same amount on some responsible bank doing business in the city of Peoria.

For specifications, blank forms of proposal and any information, address the City Engineer.

M. W. MANNING,
Commissioner of Public Works.
A. D. THOMPSON,
City Engineer. 30-1t

## ELECTRIC LIGHTING.

LEBANON, OHIO.

Sealed proposals for lighting the town of Lebanon, Ohio, by electricity will be received at the office of the town clerk until 1 o'clock p. m., August 12, 1897. Liberal franchise will be granted.

Proposals to be for a term of five years or more with price of purchase of plant on completion and at stated times thereafter.

Each bidder to furnish his own plans and specifications and each bid must be accompanied by a certified check for $1,000.00.

The council reserves the right to reject any and all bids. Address

30-1t R. B. CORWIN, Clerk.

## WATER-WORKS.

NEWBERN, TENN., July 20, 1897.

Sealed bids will be received by the committee on improvement of the water-works of the city of Newbern, Tenn., at the office of the secretary of the said committee until 2 o'clock p. m., on Monday, the 23d day of August, 1897, to furnish the necessary material, etc., and to erect and install the following:

1,300 ft. (approx.) of 8-in. cast-iron water pipe.
1,300 ft. " of 6-in. " " " "
7,200 ft. " of 4-in. " " " "
2½ tons of hub and spigot special castings.
½ ton of flanged special castings.
2 8-in. gates.
2 6-in. gates.
8 4-in. gates.
12 gate boxes.
22 fire hydrants.
1 8-in. tubular well.
1 65,000-gallon steel tank and 50 ft. steel tower.

All in accordance with the plans and specifications on file in my office. Each bid must be accompanied with a certified check for $250.00. The committee reserves the right to reject any and all bids.

30-1t J. S. McCORKLE, Mayor.

## ASPHALT PAVING.

AKRON, O.

Sealed bids will be received at the office of the Board of City Commissioners until 12 o'clock noon, Saturday, August 21, 1897, for the construction of an Asphalt pavement on Howard Street, from Main Street to Tallmadge Street.

Proposals are wanted on all kinds of Asphalt pavements, with specifications submitted subject to the general specification on file.

Amount of deposit with bid, $500.00. For general specifications and information, address the undersigned.

S. W. PARSHALL,
30-3t City Civil Engineer.

OFFICE OF LIGHT-HOUSE ENGINEER, 9th and 11th Districts, Detroit, Mich., July 24, 1897.—Sealed proposals will be received at this office until 3 o'clock p. m., of Monday, the 16th day of August, 1897, for Sturgeon Bay Canal and Devils Island LIGHT TOWERS, Wisconsin, and North Manitou LIGHT TOWER, Michigan. Plans, specifications, forms of proposals, and other information may be obtained on application to this office. The right is reserved to reject any or all bids, and to waive any defects. M. B. ADAMS, Major, Corps of Engineers, U. S. A., Light-House Engineer. 30-2t

## GRANITE PAVING.

QUEENS COUNTY, N. Y.

Sealed bids or estimates for improving Myrtle Avenue, from the Brooklyn city line to Richmond Hill, with new or second-hand granite blocks pavement, will be received by the Board of Supervisors of Queens county, at a meeting to be held at the Court House, Long Island City, on the 6th day of August, 1897, at 12 o'clock noon, at which time and place the bids will be publicly opened and the contract awarded, if awarded, to the lowest responsible bidder, with adequate security, as soon thereafter as practicable.

The right to reject any or all of the bids is reserved by the Board of Supervisors.

The amount of deposit required with each bid is $4,000. The amount of security required with each bid is $15,000.

For specifications, details and further information, apply at the office of the County Engineer,

JOHN J. McLAUGHLIN,
30-1t Bank Building, Jamaica, N. Y.

## STONE BRIDGES.

KILLINGLY, CONN.

Sealed proposals will be received by the board of selectmen of the town of Killingly, at the office of the Clerk of the Board in Danielson, Conn., until 12 o'clock noon, on August 7, 1897, for constructing three stone arch bridges.

Plans and specifications may be examined at the office of O. W. Bowen, Clerk of the Board of Selectmen.

The selectmen reserve the right to reject any or all bids.

Signed, O. W. BOWEN,
Clerk of the Board.
Killingly, Conn., July 24, 1897. 30-1t

## PUMPING ENGINE FOR SALE.

FOR SALE.—One five-million-gallon, Worthington, high-duty pumping engine.

This engine has been used at the Eastern Pumping Station of the Baltimore City Water Department since 1892, and is in first-class repair; having been in service up to June 15th, 1897.

The engine was removed as the service required a larger engine.

The engine is of the Worthington compound type, with high-duty attachment, and is as good as new; having been carefully cared for.

The engine has given in regular service a duty from 75,000,000 to 85,000,000 foot pounds, pumping 6,500,000 gallons in twenty-four hours.

For price and other details, apply to NICHOLAS S. HILL, JR., Chief Engineer Water Department, City Hall, Baltimore, Md. 30-3t

PROPOSALS FOR LAYING CEMENT SIDEWALKS IN THE DISTRICT OF COLUMBIA.—Office of the Commissioners, D. C., Washington, D. C., July 21, 1897.—Sealed proposals will be received at this office until 12 o'clock m., on August 10, 1897, for laying cement sidewalks. Blank forms of proposals, specifications and all necessary information may be obtained at this office. JOHN W. ROSS, JOHN B. WIGHT, W. M. BLACK, Commissioners, D. C. 30-1t

PROPOSALS FOR GRADING AND REGULATING AND MACADAMIZING SUBURBAN STREETS. Office of the Commissioners, D. C., Washington, D. C., July 24, 1897.—Sealed proposals will be received at this office until 12 o'clock m., Tuesday, August 10th, 1897, for grading, regulating and macadamizing suburban streets. Blank forms of proposals, specifications and all necessary information may be obtained at this office. JOHN W. ROSS, JOHN B. WIGHT, WM. M. BLACK, Commissioners, D. C. 30-1t

U. S. ENGINEER OFFICE, Equitable Building, Memphis, Tenn., July 21, 1897.—Sealed proposals for LEVEE CONSTRUCTION in Third District, Improving Mississippi River, will be received here until 1.30 p. m., August 11, 1897, and then publicly opened. Information furnished on application. H. C. NEWCOMER, First Lieut. Engrs. 30-2t

U. S. ENGINEER OFFICE, 99 Madison St., Memphis, Tenn., July 24, 1897.—Sealed proposals for CLOSING CREVASSES, ENLARGING AND REPAIRING LEVEES in Lower St. Francis, White River and Upper Yazoo Levee Districts will be received here until 12 o'clock noon, August 16, 1897, and then publicly opened. Information on application. MASON M. PATRICK, 1st Lieut. Engrs. 30-2t

Suppl

PERSONA
Obituary
ENGINEE
Coming
CONSTRU
Condense
Railways
Street a
Electric
Bridges
Building
Water-W
Irrigatio
Sewerag
Garbage
Streets
Manufac
Gas Pla
Miscella
Contrac
INDUSTR

Mr. F.
neer of
Civil E
dered to
Mr. Ja
Water-W
Mr. A.
supervise
tems of
Mr. Ja
of the
Mr. Wil
Mr. C
City En
dle, Sec
Mr. F
has bee
age Con
Mr. B
Great W
has bee
tion ha
Mr.
gineer
Pa., ha
bune"
Mr.
of Wel
of the
of Pitt
Mr.
the Ill
lace, M
has bee
Mr.
resign
duties
Electr
Mr.
First
Monto
the P
Mr.
Railw
of ins
motiv
Mr.
Grea
has
dent,
sitio
Mr.
point
work
lyn
of th
M
cago
Ia.,
inte
and
M
lic
Ass
offic
Ass
M
ney
of
Yo
are
M
pe
at
Su
qu
re